The Mining Journal,

RAILWAY AND COMMERCIAL GAZETTE:

FORMING A COMPLETE RECORD OF THE PROCEEDINGS OF ALL PUBLIC COMPANIES.

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The Royalton Tin Mine Company

(LIMITED).

Capital £15,000, in 15,000 Shares of £1 each.

Payable 5s. per Share on application, 5s. on allotment, the balance as required in calls of 5s. each at intervals of two months.

DIRECTORS.

The following Gentlemen being first subscribers are the first Directors of the Company, and will retain office until after the allotment of Shares, when the Statutory General Meeting will be held, and Directors appointed for the ensuing year:—

Mr. THOMAS HARWOOD, Newquay, Cornwall.
Mr. CHARLES HAWKE, St. Columb, Cornwall.
Mr. JOHN JAMES, St. Columb, Cornwall.
Mr. WILLIAM HENRY COBELDICK, St. Columb, Cornwall.
Mr. WILLIAM WOODMOT HOWARD, St. Columb, Cornwall.
Mr. THOMAS CRAPP, St. Columb, Cornwall.
Mr. JAMES ARTHUR CLARKE, Newquay, Cornwall.

Bankers—Messrs. WILLYAMS and CO., Miners' Bank, St. Columb.

Brokers—Messrs. THOMPSON and SON, 14, Old Town Street, Plymouth.

Secretary—G. J. POUCHEE, Esq.

OFFICES—44, MILDMAY CHAMBERS, UNION COURT, OLD BROAD STREET, LONDON.

PROSPECTUS.

This company is formed for the purpose of acquiring and working a very valuable and extensive tin sett, held under license from His Royal Highness the Duke of Cornwall, and known as the Royalton Tin Mine.

This mine or tin quarry is situated on the southern side of the Dinas Hill, in the parish of St. Columb. The sett is traversed by a large and well-known tin-bearing elvan, which for ages, by detrition, has supplied the celebrated Goss Moors with stream tin. It is amongst the earliest records in the history of Britain that the Oriental Nations were attracted to the western part of our Island by its productiveness for tin. The quantity of relics from time to time discovered in working the Goss Moors will prove most conclusively the great extent to which tin streaming was carried on by the ancient inhabitants of Cornwall in this district—in fact, so long back as the time when iron implements and modern tools were quite unknown, and all the necessaries for dressing and cleansing tin were formed of stone and hard wood. The stream tin which the ancients so industriously pursued in the moors, consists of mineral deposits washed from the lodes in the higher ground, and wherever stream tin is found in any considerable quantities (as it is and has been for ages in the Goss Moors) it is a sure indication of the presence of large and rich lodes in the higher surrounding districts. The principal source of supply of stream tin to the Goss Moors is clearly traceable to the elvan running through Royalton; it is identical in character and quality, and is pronounced by smelters to be some of the very best tin found in Cornwall.

The great elvan traverses the Royalton sett from east to west, nearly one mile (30 fathoms or 180 ft. less than the mile of 5280 ft), and measures in width 72 ft. This immense tin-bearing mass is intersected by very numerous tin lodes, and from these, as well as from the numerous branches disseminated through the elvan by the lodes in their contact with it, large quantities of black tin have at different times been raised and sold by shallow and superficial workings, the last working having produced about 20,000*l.* worth from a pit or quarry running only about 10 fms. below the surface, where the elvan yielded from 10 to 12 lbs. of tin to the ton of stuff.

A shaft was sunk to the depth of 25 fathoms, where it was found that the elvan course was increasing in productiveness, and yielded samples producing 25 lbs. of tin to the ton, with every indication of richer work going down.

The Royalton can scarcely be called a mine in the proper acceptation of the word, it being literally a quarry of tinstone, easily wrought, and proportionably more valuable. The nearest proximate instance is at the Craglaze Tin Mine, near St. Austell. The difference being that at Royalton there is no clay to value, but far more tin; yet the Craglaze has paid many hundreds of thousands of pounds profit, and has been wrought for many generations. The Royalton elvan is 12 fathoms wide, and tinny throughout, very much richer as it descends; so that an inexhaustible supply of material may be depended on to last for generations.

Some little time ago with the view of more extended operations, the mine was inspected by some of the best known and most experienced mine managers and agents in Cornwall, and there was a consensus of opinion that here were present all the conditions and indications pointing to profitable mining. The inspecting agents recommended a new perpendicular engine shaft to be sunk north of the old incline shaft, so as to intersect the elvan at about 40 fathoms in depth and so open up practically an inexhaustible supply of rich tinstuff, for as the value of the tin improved from 10 lbs. at 10 fathoms, to 25 lbs. at the bottom of the shaft at 25 fathoms, so it was the opinion of the practical and experienced miners consulted, the great elvan would be found at the depth of 40 fathoms to be proportionally richer.

It is seldom that a tin mine offers so many facilities for making early and cheap returns as the Royalton Mine, and persons investing in it may with confidence look for good dividends within a short time of the mine going to work, with a season of long and continual prosperity in the future.

Prospectuses and Forms of Application for Shares may be obtained from the Secretary or Brokers.

Registration of New Companies.

The following joint-stock companies have been duly registered:—

The Aberavon Cottage Company (Limited).—Capital 6000*l.*, in shares of 5*l.* To acquire ground, and erect cottages for the use of the working classes. The subscribers are—T. Davies, Aberavon, 20; M. Tennant, Aberavon, 20; R. Jenkins, Raglan, 10; E. Evans, Aberavon, 10; J. M. Smith, Aberavon, 10; G. Longdon, Aberavon, 10; D. Jones, Aberavon, 10.

H. A. Ivory and Company (Limited).—Capital 15,000*l.*, in shares of 1*l.* To carry on the business of pianoforte, American organ, and musical instrument manufacturers. The subscribers (who take one share each) are—W. Taylor, 53, Gaisford-street; G. Rudall, 9, King's Arms-yard; E. Smith, Abchurch Chambers; W. J. Smith, Catford; H. Beckwith, jun., Shepherds' Bush; H. Mason, 49, Peckham-grove; W. Lichfield, Lee.

The Manchester Cafe Company (Limited).—Capital 10,000*l.*, in shares of 1*l.* To carry on the business of refreshment keepers, excluding the sale of all intoxicating beverages. The subscribers (who take one share each) are—J. Garnett, Manchester; J. Thompson, Wilmslow; W. Crosfield, Liverpool; J. Temple, Liverpool; T. R. Job, Liverpool; W. H. Dixon, Liverpool; A. Dixon, Liverpool.

Walter Baker and Company (Limited).—Capital 30,000*l.*, in shares of 1*l.* To acquire and carry on a wholesale and retail business in wines, spirits, beer, and cigars. The subscribers (who take one share each) are—T. V. Mills, 5, Handon-road; W. Baker, 2, Portland-terrace; John Penning Baker, 6, York-place; H. Mombert, 58, Loftus-road; W. R. Bland, New South Gate; C. Stephen Lee, Shepherds' Bush; A. R. May, Hackney.

Swansea Baths and Laundry Company (Limited).—Capital 10,000*l.*, in shares of 5*l.* To erect and maintain sanitary, steam and other laundries, Turkish, vapour, swimming and other baths. The subscribers (who take one share each) are—T. Griffiths, Swansea; D. A. Davies, Swansea; W. Watkins, Swansea; W. Thomas, Swansea; B. R. Harvey, Swansea; J. Jones, Swansea; J. T. Davies, Swansea.

Lord Kimberley Mine, Falmouth (Limited).—Capital 50,000*l.*, in shares of 2*l.* To acquire by purchase or otherwise the Lord Kimberley Mine Exploration Company (Limited) or other mines, parts of mines, mineral grounds, rights or privileges in Cornwall or elsewhere in England; and the exploring, winning, working, manufacturing, smelting, desilverising, calcining, reducing, refining, selling and disposing of minerals, ores, materials and substances obtained or manufactured therefrom, and carrying on generally the business of a mining company. The subscribers (who take one share each) are—J. Vogel, 135, Cromwell-road, K.C.M.G.; R. M. Robertson, 12, Stanley Gardens, merchant; J. K. Isaac, 29B, Albemarle-street, retired merchant; R. Fowler, 3, Victoria-street, solicitor; E. T. Olver, St. Dunstan's-hill, printer; C. W. Bailey, Brixton, solicitor; W. H Rickard, 60, Bartholomew-road, parliamentary clerk. The first directors are—Sir Julius Vogel, Messrs. Robertson, Isaac, L. L. Irving, J. J. Skinner, and H. Liddicoat. The number is not to exceed seven or be less than five.

The Italian Narrow Gauge Railways Company (Limited).—Capital, 300,000*l.*, in shares of 10*l.* To construct, maintain, and work railways or tramways in Italy or elsewhere. The subscribers (who take one share each) are—G. F. Davenport, Kenley; R. Whitham, Notting Hill; G. Levick, Chiswick; J. H. Winley, Battersea; J. Lord, 6, Hotham-road; A. E. Honeyburne, 131, Drummond-street; A. M. Waller, Queenhithe.

"Victoria" Steamship Company (Limited).—Capital 25,000*l.*, in shares of 100*l.* To carry on a shipowner's business in all branches. The subscribers (who take one share each) are—W. J. Fernie, Liverpool; W. Nelson, Liverpool; G. J. Rudolph, Liverpool; H. Nelson, Liverpool; W. J. R. Rickford, Seaforth; W H. Fernie, Liverpool; W. H. Ellis, Bootle.

Mutual House Furnishing Society (Limited).—Capital 50,000*l.*, in shares of 1*l.* and 10*l.* To provide its members with furniture and other household effects, musical instruments, &c. The subscribers (who take one share each) are—C. Mertens, 5, Billiter-square; R. W. Baxter, Australian Avenue; C. L. A. Farmer, Cricklewood; J. H. Neck, 65A, Leadenhall-street; E. H. Wilson, 31, Lombard-street: T. B. Newell, Crouch Hill; J. C. Lammdon, 28, Burton-crescent.

The Phosphate of Lime Company (Limited).—Capital 50,000*l.*, in shares of 10*l.* The purchasing or leasing and working of mines or quarries of phosphate of lime and other minerals or products of a similar nature in Canada or elsewhere, and in particular to acquire the estate and interest of W. Pickford and J. T. C. Winkfield in certain properties known as the High Rock and Preston, situate near Buckingham, county of Ottawa, province of Quebec. The subscribers are—C. Schiff, 43, Lothbury, 10; T. Fuller, 8, Great Winchester-street, 10; W. Mills, Saleham, 1; R. C. Mayne, 101, Queen's Gate, 10; E. Cox, 43, Lothbury, 1; A. Gayford, Islington, 1; C. Klein, East Dulwich, 1.

The West Kent and Greenwich Carlton Club Company (Limited).—Capital 10,000*l.*, in shares of 1*l.* To establish, maintain, and support a Conservative club. The subscribers are—H. J. Dunville, Greenwich, 10; S. Kink, Blackheath, 10; C. D. Long, Greenwich, 10; F. Gilbert, Greenwich, 50; G. Shute, Greenwich, 10; G. W. Armstrong, Greenwich, 5; G. Blandford, Lewisham, 10.

Steamship "Herbert" Company (Limited).—Capital 5000*l.*, in shares of 10*l.* The purchasing, owning, and working of said vessel. The subscribers (who take one share each) are—H. Edwards, Liverpool; W. Richmond, Bootle; J. Gilmour, Liverpool; J. M. Spain, Liverpool; H. W. Wade, Liverpool; W. Durant, Liverpool; R. S. Joy, Sudbury.

The Central Tea and Coffee Houses Company (Limited).—Capital 10,000*l.*, in shares of 1*l.* To carry on a refreshment-house business at Manchester, excluding the sale of all intoxicants. The subscribers (who take 220 shares each) are—J. Moffatt, Birmingham; S. Short, Bristol; C. C. Smith, Birmingham; H. A. Short, Nottingham; W. H. Smith, Handsworth; S. E. Short, Birmingham; F. Short, Manchester.

The Eastern Co-operative Stores and Trading Company (Limited).—Capital 25,000*l.*, in shares of 1*l.* To carry on the business of a co-operative society in all branches. The subscribers are—J. Riddall, Poplar, 100; C. W. Vickers, 94, East India Dock-road, 1; L. Samuel, East India Dock-road, 1; H. France, Limehouse, 1; E. Williams, 79, East India Dock-road, 1; A. Goldberg, East India Dock-road, 1; J. H. Hope, 1, Eardley Crescent ,1.

Patent Rotary Gold Mill and Mining Company (Limited).—Capital 25,000*l.*, in shares of 1*l.* To acquire by purchase or otherwise the patent rights in a certain gold mill, described as "Improvements in Apparatus for Crushing Gold Ore and for effecting Amalgams" known as "The Rotary Stamp Mill." To make and manufacture the same gold mill and every part thereof, and to procure all necessary plants, stock, machinery, and materials for making and manufacturing the mills, and to erect them at the mouths of various gold mines near Llanfachreth, Merionethshire, and other parts of Wales, according to the terms laid down in an agreement between J. M. Stuart of the one part, and J. R. Hosmer on behalf of the company. The subscribers (who take one share each) are—J. M. Stuart, 11, Queen Victoria-street, engineer; G. Wright, 11, Queen Victoria-street, solicitor; F. Upton, 8A, Patshull-road, advertising agent; J. R. Holmer, Langham Hotel, esquire; E. George, 3, Norcott-road, printer; A. W. Blundell, 26, Bentinck-street, printer; C. Wilkinson, 46, Cannon-street, accountant.

Accrington and Church Investment Company (Limited).—Capital 10,000*l.*, in shares of 25*l.* Lending money, discounting bills, promissory notes, &c. The subscribers (who take one share each) are—J. Guine, Accrington; J. Clegg, Accrington; E. Eastwood, Accrington; T. Blackledge, Accrington; W. Dichmont, Accrington; T. Birtwistle, Accrington; J. Holden, Accrington.

The Belgian Date Coffee Company (Limited).—Capital 10,000*l.*, in shares of 5*l.* To acquire and use in Belgium certain inventions for manufacturing from dates a substitute for coffee. The subscribers (who take one share each) are—L. Stanilas, 107, Upper Thames-street; R. C. Sherland, Dalston; E. Gilbert, 187, Upper Thames-street; J. Burbridge, 62, Moorgate-street; G. P. Brown, Gunnersbury; W. D. Childs, Peckham Rye; G. H. T. Gilborn, Deptford.

Yeoland Consols (Limited).—Capital 60,000*l.*, in shares of 1*l* To purchase, according to the provisions contained in an agreement made between H. Worseldine, S. Richards, and J. Manley on the one part, and C. E. Kay and J. J. Lowick as trustees for the company, an underlease of, and acquire the working of, the mines of tin, copper, and other metallic ores, situate at Buckland, Monachorum, in Devonshire, together with the mining plant, machinery, fixtures, ores, materials, chattels, and effects connected therewith, for the purpose of working, exploring, and developing all or any of the mines, and generally to carry on mining operations. The subscribers (who take one share each) are—C. P. Wheeler, Covent Garden Market, fruit salesman; J. C. Martin, Ossory-road, whitelead manufacturer; W. G. G. Jones, 11, Queen Victoria-street, solicitor; A. W. Anderson, Mark's-road, colour manufacturer; S. J. Boyce, 43, Queen Victoria-street, accountant: R. Condy, 15, Garlick Hill, drug merchant; W. H. S. Shurley, 12, New Court, law stationer. The subscribers are to appoint the first directors. The secretaryship is to be filled by Mr. J. J. Lowick, at a salary of 150*l.* for the first year.

NEW APPLICATION OF GAS-FIRING AND HEAT-REGENERATION.

Some 18 or 19 years ago the principle of heat-regeneration was adopted with most gratifying results at the famous glassworks of Messrs. Chance, Birmingham, and since then there have been many and varied applications of gas-firing and heat-regeneration in such industrial processes as require very high temperatures; indeed, it may safely be said that the heat-regenerative furnace—one of the many inventions of Dr. C. W. Siemens—has effected quite a revolution in the modes of economising fuel in the manufacturing arts within the period mentioned. A new phase in the practical application of gaseous fuel on the heat-regenerative system is now being worked out on a large scale, and with remarkably successful results in connection with the manufacture of fire-bricks at Glenboig, near Glasgow. In the Glenboig district there is an almost inexhaustible deposit of fire-clay in the strata, which belong, speaking geologically, to the millstone grit series of the Scottish coal measures. When properly selected and properly treated that clay yields fire-bricks whose power of withstanding great furnace heats is something extraordinary. The bricks and other goods made from it have only been generally known for about the same period as is covered by the history of the Bessemer and Siemens processes of steel making as practical inventions, but they are already in extensive demand in almost every country in the civilised world, and one of the works in the Glenboig district is, without doubt, the largest establishment of the kind in the United Kingdom.

It is at one of those establishments—the Glenboig Star Fire-Brick Works—that the new departure in kiln-firing has been taken, and that its success has been practically determined within the past three or four weeks; and it, therefore, comes to be exceedingly interesting to note that the bricks so extensively used in the construction of heat-regenerative furnaces are henceforth to be fired by the same method, though modified to suit the special circumstances of the case. The proprietor of the works just named—Mr. James Dunnachie—had long conceived the idea of following in the footsteps of Dr. Siemens in regard to the kind of fuel to employ and the method of turning it to account economically in burning his bricks, and he had even matured plans for the purpose, the only thing that he waited on being a gas generator capable of providing him with an abundant supply of cheap gaseous fuel. Eventually there was brought under his notice the Wilson gas producer, an invention that is most closely identified with the Cleveland district, where innumerable improvements in the metallurgical and cognate arts have been initiated and practically worked out. The invention in question seemed to meet all his preconceived wants, more especially as regards the fact that it embraces an induced current arrangement of forcing the gas into and onward through the kiln. Two gas producers were ordered, and in due course erected on a suitable spot within the works; and at the same time Mr. Dunnachie proceeded to erect a kiln embodying all the newest notions that seemed to accord with the most efficient method of developing the calorific power contained in the gaseous fuel.

The kiln in its complete form consists of a series of ten separate chambers, all of the same size with each other, and having a capacity for about 13,000 or 14,000 bricks, according to the size and shape. These chambers are arranged in two sets of five, each set being contained in a mass of brickwork, with the requisite gas and air flues arranged underneath the floor of the kiln. The two masses of brickwork are placed parallel to each other at a distance of about 24 ft. apart, and the space between them is covered in above by iron roofing, so that it is possible to carry on all the operations of charging and drawing, steaming and heating-up, regenerating, firing, cooling-down, &c., in any kind of weather. Up to the present only one set of fire-kiln chambers has been brought into practical use, but the other five chambers are being rapidly prepared for service. As it is, however, it has been abundantly demonstrated that the system works most admirably. Let us assume that one of the chambers, say No. 1, has just been burned off, then the current of gas from the gas producers, at a temperature of from 600° to 800° Fahrenheit, and containing well nigh 40 per cent. of combustible material, is turned on to No. 2 chamber, and the stream of atmospheric air necessary for its combustion is made to pass through the mass of finished brick in No. 1, which serves as a heat regenerator of extraordinary efficiency. At first that stream of air will doubtless be heated up to well nigh the melting point of steel. When the hot gas and the still hotter air become thoroughly mixed in the flues and escape through the burners into the kiln-chamber proper, there is produced a magnificent heating effect, such as is seldom seen apart from metallurgical operations conducted on a very large scale. The burning operation is completed in a period ranging from 24 down to 18 hours, and it is confidently anticipated that, when all the arrangements of the finished kiln are in full and reglar daily work, the time required for a burning operation may be reduced to 12 hours; whereas, in even the best type of coal-fired brick kiln not working on the heat-regenerative principle, a firing operation requires from 48 to 60 hours—from four to five 12-hour shifts.

But now another important point must be taken notice of—the fact that before the firing proper began in No. 2 kiln chamber the mass of brick contained in it was at a bright red heat, that effect being due to the circumstance that the effluent gas from No. 1 chamber was passed through it and thus made to give up all the heat contained in it, except such as was required to produce an ascensional current in the chimney stack. In this way a burned-off chamber of brick is always in readiness to serve as a heat regenerator for the current of air requisite in the next chamber of the series. Valves and dampers are provided for keeping the currents of combustible gas, air, and effluent gas under the most perfect control; and the ultimate effect is, perhaps, even more beautiful and scientifically perfect than the original conception. Not only is there great economy as to the time required for the firing operation in any kiln chamber, attended with various other economies that need not be enlarged upon, as they will readily suggest themselves to practical people, but there is a still greater economy in respect of the fuel employed. Up to the present the amount of fuel necessary to burn a given quantity of bricks has been reduced to fully 50 per cent., and there is every good reason to suppose that in a very few weeks the saving in fuel will have reached quite 75 per cent.

Metallurgical Companies.—As we have been requested to note corrections in the List of Smelting, Metal Extraction, Arsenic, and Barytes Companies in the United Kingdom (inserted in the *Mining Journal* of Sept. 17), we purpose republishing the list on Oct. 22, and

shall be glad to know of any additions or corrections before Oct. 20. No charge whatever is made for the insertion, the sole object being to secure an accurate and complete list which will be alike advantageous and useful to buyers and sellers of ores and metals.

ROYAL COMMISSION ON MINING ACCIDENTS.

It is gratifying to find from the preliminary report of the Commissioners—Mr. Warington Smyth, M.A., F.R.S., Earl Crawford and Balcarres, Sir George Elliot, Profs. Abel and Tyndall, and Messrs. T. Burt, M.P.; R. B. Clifton, F.R.S.; W. T. Lewis and Lindsay Wood—just issued, that the facts elicited leave no doubt as to the great amelioration in the safety of mines which has taken place during the past 30 years. On the one side greater attention has been directed to the scientific treatment of the various problems involved in underground operations; on the other, more care and regularity have been exercised generally by workmen and officials in the daily routine of their work. It will be seen by reference to the official returns that, while the total number of deaths remains almost the same, the number of persons employed has nearly doubled. Hence it appears that the annual number of deaths caused by accidents in mines, great as it unfortunately still is, has been reduced, as compared with the number of persons employed, almost by one-half; and the Commissioners are strongly of opinion that this beneficial result is to be ascribed to the simultaneous action of legislation and of the spirit of enquiry and emulation fostered by local scientific institutes of mine managers.

With regard to the method of working many interesting details as to the differences of opinion entertained concerning the relative merits of the longwall and the pillar and stall systems, the Commissioners observe that the system upon which a given area of coal field should be laid out is a subject of high importance. It depends in a great measure upon the very various conditions of the seams. A great majority of the opinions decides that the proper plan is to commence with the upper seam, and work it out before taking the next in order, but it is generally conceded that trade exigencies must sometimes interfere with this descending order of work, and that with regard to safety it is not a question of much moment unless the interval between the seams be very small. The actual mode of working, although varying greatly in every district, may be broadly divided into—first, the post and stall, or pillar and bord, or (in Scotland) stoop and room, where the first stage of excavation is accomplished with the roof sustained by coal; secondly, the long wall method, where the whole of the roof settles behind the workman, no sustaining pillars of coal being left; and, thirdly, the intermediate plans, like that of the "banks" in Yorkshire, and the double stalls in Wales, in which the roof falls within chambers or "banks" of a limited width. A strong array of evidence favours the view that the long wall when well planned is the safer system both as regards facility of ventilation and less liability to accidents from falls. It is, however, generally admitted that under certain circumstances seams cannot be advantageously worked on this method, and there has been an impression, especially in Scotland, that its advantages are limited to seams of coal not exceeding 5 ft. in thickness. This, however, is at variance with some English and Welsh examples. Much diversity of opinion obtains as to the speed with which the coal should be opened out and worked. Some observers, especially with reference to certain fiery mines, and to the explosion at Blantyre, insist that rapid working causes a much larger efflux of gas. Others hold that no serious danger is to be apprehended from this source, whilst many of the most experienced managers lay great stress on the superior safety of a quick advancement of the long wall face. A strong difference of opinion also prevails as to the expediency of driving in the first instance outwards to the boundary, and working with certain modifications back towards the shafts.

The question of ventilation is that which next receives attention. Great progress has been made during the past half-century, and it is observed that the scientific study of the subject, the proposed introduction, about 1851, of the steam-jet, and the rapid adoption of mechanical ventilating agents since 1862, have all led to comparisons and practical improvements which have brought about the introduction of volumes of air far in excess of what used to be deemed sufficient only a few years ago. The well constructed and isolated ventilating furnaces, generally wider and often much longer than its prototype, is shown, especially in deep pits, to give the most powerful currents of air. At South Hetton and Murton 380,000 to 440,000 cubic feet per minute are obtained by three furnaces and twelve boiler fires. A single furnace erected to aid a fan at Westhoughton, in Lancashire, gave 120,000 to 150,000 cubic feet per minute. At the deep pit, Rosebridge, 235,000 cubic feet per minute are given by two 9-ft. furnaces; at Wynnstay 200,000 ft. of air by one large furnace. It is, of course, understood that such furnaces must be continuously tended, and not left, as is sometimes the case in Scotland, neglected on the Sunday; also that air charged with gas should not be passed through the furnace. With this view a separate outlet into the shaft, the dump drift is sometimes, but perhaps not often enough, provided. Many managers of deep collieries with dry shafts prefer this method of generating a ventilating current; but the application of various fans and mechanical ventilators to workings of different depths is an important feature of the last 18 years. The evidence of a number of witnesses shows that the volumes of air obtained, varying with the dimensions of the machine and the speed of revolution, approach in many cases to the gigantic quantities due to the best examples of the furnace system, and affords strong testimony to the efficiency of mechanical appliances at command for creating a powerful ventilating current.

To falls of roof and sides a much larger proportion of fatal casualties is due than to any other cause, and it has to be remembered that besides the propping, walling, and packing needed as protection, many other considerations come into play, such as the special character of the mineral itself and its roof and floor, the system adopted for working it, and the actual method of excavating it. The natural conditions in some districts, as in South Wales and parts of Lancashire, are so much more difficult to deal with than in others that great caution must be exercised in judging of the numbers given in the statistical tables. On the question of these variations the evidence of those witnesses who have been familiar with several of these contrasted districts is worthy of much attention. In the longwall much assistance appears of late years to have been derived from the use of pillars built up of crossed timber or stone ("chock," "cogs," or "nogs"); the application also of pack-walls or buildings of rubble stone has become more systematic and more general. Thirty years ago cast-iron props were introduced as a substitute for wooden props, but the result has not been successful. The second point is to determine by whom the work of supporting the roof is to be done. It is generally the case that the roadways are timbered and made secure by officials. In Northumberland and Durham, where the number of deaths from falls is comparatively moderate, the setting of the timber in the face of the coal and the drawing of it when done with, often a very dangerous task, are entrusted solely to sub-officials termed deputies, and the coal hewers are required only to put in a prop now and then to secure their place in the absence of the deputy. When this plan has been attempted in other dsstricts it has generally failed, although highly approved by all classes in the North of England, and by some of the witnesses from Scotland. On the other hand, the system in vogue in the English, Welsh, and Scottish coal fields generally is that the propping at the face of work is made over to the hewers, pikemen, or butty colliers. Both employers and workmen in these district assert that that the nature of the roof and other circumstances will not admit of the deputy system of timbering. In cases in which the hewers are not specially paid for setting props it would appear that they are apt imprudently to delay it too long. A very general feeling is expressed that the "drawing" of the timber should be effected, as is already very commonly the case, by a class of officials selected for their fitness; and that it should not be done when the hewers are engaged in the adjacent workings. The use of coal cutting machinery does not appear to have diminished the number of accidents.

The issue of gas (light carburetted hydrogen) from coal seams and the associated strata is, the Commissioners remark, at the same time one of the most serious causes of accidents, and one upon which accurate information is most wanting; there is no definite knowledge as to the condition in which this gas exists in the coal. If gas be regularly emitted from freshly bared surfaces of the coal it may be dealt with by due and well understood precautions. The accumulations of gas caused by insufficiency or temporary interruption of ventilation by the partial openness of goafs, by irregular falling of the roof, or other means, are referred to throughout the evidence as sources of accident only to be guarded against by constant care and watchfulness. On the subject of the far more dangerous phenomena of sudden "blowers" and "outbursts" of gas, which have, both in this country and in Belgium, increased in numbers of late years, doubtless in connection with the generally greater depth at which the coal is worked, the evidence now presented is exceedingly important. The overwhelming volumes of gas which have thus rapidly been thrown into the workings have been more than any possible ventilation could for the time cope with. There appears to be good grounds for concluding that the daily examination of the working places by officials of the colliery is well and truly carried out; although it has been stated that in certain cases too long an interval has elapsed between the inspection and the time of entry of the men into their working places. Many of the experts are satisfied with the Davy lamp as a test of the presence of gas, and, having tried a number of Ansell's indicators, have concluded that they are practically useless

The Commissioners remark that the variations of atmospheric pressure exercise an undoubted effect on accumulations of gas in mines. Some few observers believe the expansion of the gas from the places where it has been pent up takes place before an indication of the barometer. Others think that the issue of the gas follows the fall of the mercury. Very few observers believe in any important influence of atmospheric pressure upon the issue of gas from the face of the coal, holding that the extra volume of fire-damp thus given off would, at all events, be small in comparison with the capacity for diluting gas which should exist in the air current. Observations of the barometer are, however, generally registered, sometimes three times a day, above and under ground. When it is falling, and when the wind is from the S.W. or S.E., extra caution is taken in many collieries, and the furnace is more briskly fed or the speed of the fan increased, although very few of the witnesses believe that there is any close relation between the atmospheric pressure and the occurrences of colliery explosions; more particularly some of the viewers from the north, who have closely watched these phenomena, are of opinion that such connection has not been made out. Attention appears first to have been directed in 1845 by Faraday and Lyell to the influence which may be exerted by deposits of coal dust in mines upon the magnitude of explosions. Observations similar to those then published were made in France ten years later; and in connection with the Commission, Prof. Abel's experiments (recently referred to in the Journal), with samples of dust collected in different parts of Seaham Colliery, were made. The results obtained led to an extension of those experiments with samples of dust from other collieries, where serious explosions have recently occurred, and also with a number of non-combustible dusts. Among the points of interest elicited by this inquiry were the following:—The proportion of fire-damp required to bring dust in a mine into operation as a rapidly-burning or an exploding agent, even on a small scale, and with the application of a small source of heat or flame, is below the smallest amount which can be detected in the air of a mine, by the most experienced observer, with the means at present in use. In air travelling at a velocity of 600 ft. per minute, different coal dusts suspended in the air, containing from 2 to 2.75 per cent. of fire-damp, produced explosions. At a velocity of 100 ft. per minute the same result was obtained with air containing only 1·5 per cent. of gas; and ignitions of dust approaching explosion and extending to considerable distances were obtained with dust in air containing much smaller proportions of gas. Mixtures of fire-damp and air, bordering on those which will ignite on the approach of flame, were instantaneously inflamed by a lamp when they contained only a few particles of dust in suspension, and it was found that these need not be combustible, but that some perfectly non-combustible dusts possessed the property of bringing about the ignition of mixtures of air and gas by a lamp flame, which were otherwise not inflammable. The question of dealing with the dust accumulations in fiery mines, with the view of removing or diminishing this source of danger, has been, to some extent, discussed in the evidence, but with no satisfactory result. The expedient of watering the roadways is stated by Mr. Galloway to be had recourse to in some instances in Wales with beneficial results, but in others it appears to be attended with considerable difficulties and objections, due to the tendency to upheaval of the floors of the roads when in a damp condition.

In considering the lighting of mines, some few among experienced miners and managers express the opinion that every mine might be sufficiently ventilated to admit of being worked with open lights. Some of the best authorities agree that there is greater danger from falls when lamps are used than when open lights are employed, that the men are better educated to be cautious, and that the ventilation is sure to be better attended to where open lights are used. In strong opposition to these views it is pointed out that open lights are a fertile source of accident, and that they cannot possibly be allowable where an interruption of the air current may possibly cause an accumulation of gas, or where the mine is liable to sudden outbursts. The Davy lamp is by many authorities preferred to all others, especially for inspecting by the firemen. Some managers of long experience "place implicit reliance upon it;" one states that he uses 5000 to 6000 of them daily, and does know that he cannot trace any accident to them. Equally confident are many veteran managers of the good qualities of the Clanny. Others, even in districts where at the present day it is still used in great numbers, admit the insecurity of this lamp. Stephenson's (the "Geordie") is much trusted, especially in South Yorkshire, and in seams subject to sudden outbursts, from its property of going out in gas. By some it is objected that if the glass be broken the Stephenson is more dangerous than the Davy. The Mueseler has been used in some few places in this country for 20 years. Managers employing as many as 700 a day are thoroughly satisfied with its security and economy. The evidence on the merits of the "protector lamp," fed with mineral oil, is conflicting. The evidence confirms the statement that the employment of the ordinary unprotected Davy and Clanny lamps in an explosive mixture, where the current exceed 6 ft. a second, is attended with risk of accident almost amounting to certainty. The various methods of locking the gauze to the body of the lamp have been duly examined. It is shown by the evidence that complication forms a serious difficulty; and also that within the last thirty years the men have, as a rule, learned to be far more careful and conscientious in the use of the safety-lamp. At the Pleasley Colliery, near Mansfield, 30 of Swan's electric lamps were placed, some in the inset, some along the main road, and several in the longwall face. An admirable illumination was obtained, but further experiments, and a full examination into all details connected with its application, are needed before it can be decided whether the electrical illumination of workings is practically achievable.

The use of gunpowder and other explosives is at the present day so widely spread, and is held by many to be so indispensable, that all suggestions for checking their application in certain cases, on account of risk, need to be very carefully weighed. An overwhelming majority of our witnesses assert that it is practically impossible, as a rule, to work mines without powder. Only two or three out of the whole number assert that it is possible to carry out the driving through rock without the use of explosives, and little evidence is offered in support of the statement. Numerous witnesses consider it desirable to restrict the application of powder, and not to substitute blasting for the use of the pick in shearing or cutting the coal. Some, who have had the getting of millions of tons with very few accidents, think it safer to use powder than to attempt to do without it. Whilst a few would forbid the use of powder wherever safety lamps are employed, a great majority of those experienced in mines which give off gas hold that it does not follow that in all cases where such lamps are used it is unsafe to blast. Many witnesses consider that restrictions may be desirable, either that the blasting should be entrusted exclusively to selected officials, or that it should be carried on or allowed only in certain parts of the work, or, according to a practice very general in certain fiery seams in Lancashire, only at night, when most of the men are out of the pit. This last alternative course would not in the opinion of other witnesses be admissible in certain seams and at certain stages of the work. In the meanwhile it has appeared to be very desirable to make trials of such methods of "falling," or bringing down the coal, as may do away with the danger caused by sparks and flame; and with this view a series of experiments already commenced will be continued in different localities.

In the departments of mining, which are connected chiefly with machinery, a very great advance has been made, which, on the whole, appears to have resulted in diminishing the proportion of accidents. As regards the arrangements in the shafts through which, in almost all the coal and iron mines, the men have to pass to and from the scene of their labour, a most gratifying conclusion may be drawn. The working with more perfect winding engines and better fittings, especially with the general introduction of guides and cages, has in a very high degree reduced the number of accidents, and the figures supplied in the Inspectors' reports, and by several of the other witnesses, show that the men now travel through the shafts with a minimum of risk. At the same time it must be conceded that the numerous devices of ingenious inventors for arresting the weight in cases of fracture of the rope meet with but scant approval. Several of these are referred to as having been employed for years and then given up. There is under this class of accidents a large proportion which no scientific appliances are likely to reach, and which can only be guarded against by discipline and by individual caution and attention. The old system of mechanical signalling by causing a hammer to strike an iron plate has in many collieries been superseded by electric bells, both on engine planes and in shafts. It appears, however, that very few accidents are caused by defective signalling, and the substitution of electric for mechanical appliances is due to considerations of convenience and economy rather than to the necessity for securing greater safety to the persons employed. With regard to arrangements for saving life by facilitating penetration into the workings of a mine after an explosion, and rendering early assistance to the sufferers. The opinion has been expressed by some witnesses that it might be useful to have in each large district a central depot of various apparatus which might be employed for this purpose. There is, on the other hand, the testimony of many men experienced in this work that, having regard to the necessity for immediate action, such more or less distant sources of supply would be of little avail, and that reliance must generally be placed only on such appliances as can be obtained near at hand. On one important subject, the possibility of enabling men to enter and to carry lights into deadly gases or even under water, we have had evidence with reference to the apparatus of M. Denayrouze and others. The Commissioners have also lately examined the various contrivances of Mr. Fleuss, for enabling men instructed in their use effectually to prosecute their work under a considerable depth of water, or amid the most deleterious vapours. In the workings of the Maudlin seam at Seaham Colliery, which contain an accumulation of dangerous gases resulting from the calamitous explosion of September last, the portable breathing apparatus of Mr. Fleuss and his protected lamp have now been employed for some weeks. Their application in the re-opening of the works has been of great advantage, and has inspired much confidence in those engaged in these critical operations. The Commissioners explain that their present summary has been framed only with the object of presenting a concise review of the information elicited, and not with the object of conveying any definite conclusions arrived at by themselves upon any of the numerous subjects included in their enquiry. They desire to reserve the expression of such conclusions until the completion of the experimental and other investigations upon which, as already stated, they are still engaged.

"Coral Sands."—Under this appropriate title Mr. H. Stonehewer Cooper has, in two well printed and handsomely bound volumes, given a vast amount of information regarding the commercial importance of Polynesia which enables us to appreciate, to an extent which no previous similar work has done, the wealth of the scattered archipelagos which dot the chart of the Pacific Ocean. In the first volume Mr. Cooper deals exclusively with the crown colony of Fiji. In a pleasant gossipping style he gives details of the enormous resources of this rich and most promising colony, and points out that in the large and rapidly growing cities of the Australian colonies there is a practically boundless market for all her tropical produce, independently of such articles as copia and Sea Island cotton, which has to be sent to Europe for sale. In the second volume Mr. Cooper takes us from one cluster of islands to another, and gives special prominence to the commercial importance of the less known groups, and urges the systematic employment of British capital in regard to opening up the remoter islands of the Pacific. The work is a valuable contribution to the somewhat limited number of works at present existing on the subject, and should be read by all who are seeking fresh fields of enterprise.

Electric Light for Mines.—The electric light, burning in a vacuum, is employed for lighting mines by Mr. P. Adie, of Pall Mall, and the connecting wires are so supported by the body of the lamp that if by any accident the lamp were broken the electric current should at once be broken and the light extinguished, the great improvement being that as electric light is well known to burn in a vacuum no possible light can in ordinary circumstances be communicated to explosive gases so destructive of life, especially in coal mines, while the splendid illuminating power of the electric light can thereby with safety be employed.

Landlords and Farmers, their Present and Future Position.—Under this title Mrs. Gerard Cresswell, for 18 years the "Lady Farmer" on the Sandringham Estate, has just issued (London: Jarrold and Sons, Paternoster Buildings) an interesting pamphlet, in which she fully discusses the whole question of the right to compensation for unexhausted improvements now so universally admitted, and of essential and vital importance, by asking and replying to the questions.—1. Whether compensation should be compulsory or not?—2. What form of tenure can be recommended as most advantageous to landlord or tenant?—3. Whether any changes or reforms are expedient in our land laws, and if so, of what should they consist? Mrs. Cresswell's reasoning is sound and thoughtful throughout—she thoroughly recognises the absurdity of any attempt to return to Protection or any equivalent of it, although curiously enough so many of all political creeds are looking to compulsory reciprocity, countervailing duties, and other equally senseless expedients as improvers of trade. It is really surprising to find men who would disdain to be designated Conservatives advocating those remedies of revenge, and regretable to find Conservatives admitting the Fair Trade movement to be worthy of consideration. Mrs. Cresswell's pamphlet is worthy of attentive study.

Tait's Thermic Ventilator.—Two pamphlets—one by the manufacturers, Messrs. Taunton and Hayward, of Birmingham, the other by "M.D."—entitled How we Breathe, What we Breathe, and What we Ought to Breathe (London: Wertheimer and Co., Circus Place), have just been issued in explanation of this invention. Prof. Lawson Tait, in writing on ventilation, says:—To those who are accustomed to deal with questions of Hygiene, a natural enquiry arises at once, what mischief can arise from a fire-place? A fire-place ventilates a room too much and yet not enough. The draught to a fire-place either with or without fire, gathered as it is from every available chink of window and door, never displaces that most vitiated stratum of air which lies immovable and poisonous in the upper parts of the room. He maintains that for proper ventilation it is absolutely essential that the whole aerial contents of a room should be in a continual and regular movement of displacement and renewal, taking place at the rate of at least 2000 cubic feet per hour for every occupant; that this displacement should be so conducted that no current should be felt; and that a uniform temperature should be maintained. This temperature should be completely under control, and for a bedroom it should never be under 52°, nor above 57° to 60° in case of illness. The arrangement consists in producing an air current by the

use of concentric tubes, one of which is kept at a higher temperature than the other by gas heat. Messrs. Taunton and Haywood state that with this apparatus it is roughly carculated that for every cubic foot of gas burnt 1000 cubic feet of fresh air is driven into the room, and of course 1000 ft. out of the room. In a bedroom with this apparatus the air will be found pure and fresh all the night through. It can be equally applied to gas jets used for lighting purposes, if they are wall brackets. The apparatus is of course varied in form, according to the position in which it is to be used.

ORE CRUSHERS AND PULVERISERS.

It has frequently been remarked that although stone-breakers get through a large quantity of work the ore passed through them is not pulverised; indeed, in treating many minerals this is a decided advantage, the absence of dust permitting more complete separation to be effected where, for example, lead ore is under treatment. But there are some cases in which pulverisation is essential, and for these Mr. Charles Forster, of Pittsburgh, U.S., has provided in the machine which he has just patented. He forms in the corrugations of the dies a series of angles extending longitudinally across their faces whereby a number of projections are formed on the movable die, and a number of angular depresssions on the fixed die, which give the dies a much firmer bite on the material, and enable them to crush it more easily. There is formed at the lower part of the dies a series of lips, the lips of one die extending out opposite the plain portions of the other, by which the material is caught as it descends and given a final and more efficient crush. The crushing and pulverising are effected at the same time, the upper part of the chamber crushing and the lower pulverising. The fixed die is mounted in a frame cast at one end of the bed of the machine, the die being provided with a pivot bearing on its back which fits into a recess in the frame, and the base of the die being slightly inclined at the back, and resting against a taper or wedge bar, by means of which the die may be thrown out or drawn in to diminish or enlarge the opening between the dies, according to the size to which the materal is to be crushed. After the die has been adjusted it is firmly locked by two wedges driven between wings on the die and the frame of the bed. The moveable jaw carrying the moveable die is provided with a pivot extending down into a seat in the bed, and a hollow semicircular bearing on the bed extends up around the pivot and within the jaw to enable the jaw to sustain the heavy strain upon it in crushing. The jaw is provided with a long arm extending back over the bed, and resting at its end on a plate on the bed, and a reciprocating motion is imparted to the arm by suitable power connections, which cause the face of the moveable die to move or vibrate laterally across the face of the fixed die. The movable die is secured in place in the jaw by an upwardly tapering dovetail connection being slipped in from below and held in place by a couple of pins passing over the top of the jaw into recesses or holes in the back of the die.

In operation the lateral vibration of the movable die across the fixed die causes the cheeks on the movable die to alternately approach and recede from the hollow parts on the fixed die, the cheek on one side approaching when that on the other side recedes, so that the operation of crushing is continuous. The ore or other material is fed at the top of the machine, and is caught in the angular faces of the dies and crushed between them, the angles on the faces giving the dies a much stronger bite or hold than where the ordinary curved dies are used, and enabling them to crush or grind it more easily. As the material falls between the dies it is caught by the lips and given a final break, the broken material being tilted or thrown over by the lips, so that no long pieces can pass without being crushed small enough to pass through the spaces between the lips, the lips thus serving to crush the material to a more uniform size than the ordinary dies. When the combined crushing and pulverising dies are used the lateral vibration imparted to the movable die on the movable jaw causes the corrugations of this die to alternately approach and recede from those of the fixed, as described in connection with the other dies. At the same time the convex base of the movable die vibrates laterally with a crushing and grinding motion within the concave of the fixed die. The material to be crushed and pulverised is fed in at the top, and is crushed by the corrugations as described in connection with the other dies, the material being gradually crushed still smaller as it sinks between the dies until small enough to fall into the tapered pockets above the crushing edges on the convex face. As the material is fed from these pockets it is caught between the face of the fixed die and the grinding edges of the movable die, which by a part crushing, part grinding motion, thoroughly pulverise it, and by the lateral motion of the die throw it out into the clearances between the edges, from which it drops into the discharge. As the peculiar grinding motion of the dies has not so great a wear or strain on them as the direct crush usually employed in crushers, dies made of these substances will be found to wear well, and prove satisfactory in machines having the operation above set forth.

MAGNETO-PNEUMATIC ORE SEPARATOR.

With a view to subject the ore to both pneumatic and magnetic action, whereby nearly all the metal is saved, Messrs. Hastings, Holbrook, and Goddard, of Palmer, Massachusetts, have invented an improved and simple apparatus. In practice a feed-hopper is used, having an adjustable opening, through which the stamped material falls upon an endless band. To further regulate the feed, and insure an even distribution, a toothed bar or rake is arranged across the opening with its teeth reaching into the same, and to which a transverse motion is imparted by means of a suitably connected lever, bearing against the corrugated or undulated side of the driving pulley of the machine. This endless band, as it carries the material along in a horizontal or nearly horizontal direction, passes between the two boxes, the lower of which receives by means of suitable connecting pipes a blast of air from a fan or other similar apparatus, and delivers through suitable openings in its upper side a current of air, which passing through the porous material, such as wire gauze, of which the band is made, lifts the light earthy and rocky particles out of the heavier metallic particles of the stamped material on the band, and immediately as they are lifted these particles are sucked in through openings in the lower side of the upper box into the latter, to which is connected a pipe leading to an exhausting fan, and by this second or exhaust current thus established the particles are drawn away out of the machine. The heavy particles which remain on the band are then, if magnetic ore is being treated, subjected to the action of permanent or electromagnets, to finely separate the metallic parts from the earthy or rocky particles that may still have remained. These magnets are mounted on that drum of the endless band which is on the end of the machine opposite to the feed hopper, and as the band with the material thereon passes downward over the said drum, all the metallic particles are held by the attractive force on the surface of the band, whilst the non-metallic particles fall off immediately into a suitable duct, which may be constructed adjustable if desired. The metallic particles fall off into a separate receptacle, as the portion of the band on which they adhere moves away from the magnetic drum.

This magnetic drum is preferably constructed of a hollow shaft, carrying a wooden casing, upon which are fixed longitudinal series of electromagnets, the wires of all magnets of such series being connected together, and the wires of the outermost magnets of each series being connected to radial conducting bars, which are insulated from the hollow shaft, but pass through the same, and are set in two bars of conducting material, reaching from each extremity to a sufficient distance into the shaft, but also insulated therefrom. To the ends of these bars are connected in any suitable manner the conducting wires leading from an appropriate electric generator. The surface of the drum upon which the endless band runs is formed by segmental shaped armatures set in the pointed and slotted ends, of the magnet cores, so that the ends of one armature come opposite the middle, or nearly so, of the adjacent ones, whereby a more unbroken surface is obtained. The driving pulley for imparting motion to the endless band may be mounted either upon the shaft of the magnetic drum or upon the opposite drum of the band, or gearing may be used for the purpose. It is evident that if non-magnetic ores are to be treated the magnetic drum may be dispensed with, and the band may run upon two ordinary drums.

LIST OF SMELTING, METAL EXTRACTION, ARSENIC, AND BARYTES COMPANIES IN THE UNITED KINGDOM, 1880.

(From the Mining Record Office Statistics.)

TIN.

Thomas Bolitho and Sons, Chyandour, Cornwall.
Williams, Harvey, and Company, Trethellan and Mellanear, Cornwall.
Daubuz and Company, Cavedras and Treloweth, Cornwall.
R. R. Michell and Company, Trereife, Penzance Cornwall.
Bissoe Bridge Company, Bissoe, near Truro, Cornwall.
Redruth Tin Smelting Company, Redruth Cornwall.
Calenick Tin Smelting Company, Calenick, Cornwall.
Charlestown Tin Smelting Company, Charlestown, St. Austell.
Penpoll Tin Company, Redruth.

COPPER.

Vivian and Sons, Hafod, Swansea.
Pascoe Grenfell and Sons, Middle Bank, Swansea.
Nevill, Druce, and Company, Llanelly.
Williams, Foster, and Company, Swansea.
Mason and Elkington, Pembrey.
Copper Miners' Company, Aberavon.
Charles Lambert and Company, Port Tennant, Swansea.
The British and Foreign Copper Company, Liverpool and St. Helen's.
Landore Copper Company, Landore, near Swansea.
Newton, Keates, and Company, St. Helen's.
Baxter and Company, St. Helen's.
Bibby, Sons, and Company, St. Helen's and Liverpool.
W. Roberts, jun., St. Helen's.
James Keys and Son, Whiston Works, Cheadle, Staffordshire.
Sweetland, Tuttle, and Company, Swansea.
Ravenhead Copper Company, Liverpool.

LEAD.

Bewick and Partners (Limited), Hebburn, Newcastle-on-Tyne.
Nevill, Druce, and Company, Llanelly.
Runcorn Smelting Company, Runcorn.
The Panther Lead Works, Bristol.
Blackworth Lead Works, Bristol.
Weston, Sons, and Company, Bristol.
Cookson and Company, Howden, Newcastle-on-Tyne.
Locke, Blackett, and Company, Wallsend-on-Tyne.
Executors of Jos. Dinning, Haydon Bridge.
Vivian and Sons, Swansea.
Enthoven and Sons, London.
Locke, Lancaster, and Company, London.
Pontifex and Wood, Farringdon Works, London.
Logan Edward, Birkenhead
Par Lead Smelting Company (C. Remfrey), Par, Cornwall.
Peter Glover and Robinson, Widnes Lead Works, near Warrington.
White Rock Works, Swansea.
Quirk, Barton, and Company, St. Helen's.
Adam Eyton, Llanerchymor, Holywell.
The Cambrian White Lead Company, Brymbo, near Wrexham.
Joseph Walker, Parker, and Co., Dee Bank, Bagilt, and Newcastle.
Governor and Company of Lead Smelters, Nenthead, Alston Moor.
" " " Stanhope, Durham.
W. B. Beaumont, Allendale, Northumberland.
" " " Rookhope, Durham.
Mill Dam Mining Company, Bakewell.
Joseph Wass and Son, Lea Lead Works, Matlock Bath.
J. Fairburn and Company, Middleton Dale and Bradwell.
Snailbeach Lead Company, near Shrewsbury.
Pontesbury Lead Works, Minsterley, near Shrewsbury.
J. H. Moore Brough Works, Hope, near Sheffield.
E. Backhouse, Darlington.
Greenside Mining Company, Penrith.
The Keld Head Mining Company, Wensleydale.
John York, Pateley Bridge.
Duke of Devonshire, Grassington.
The Duke of Buccleuch, Wanlock Head.
The Lead Hills Mining Company, Lead Hills.
Lister, Robinson, and Company, Grinton Moor.
The Arkindale Mining Company, Arkengarthdale.
The (A.D.) Lead Company, Blakethwaite.
R. Milner and Company, Belde Hill.
The Swaledale Lead Company, West Swaledale.
Executors of Sir G. W. Denys, Bart., Surrender, Swaledale.
Charterhouse, Blagdon, Mendips, Bristol.
Waldegrave Lead Smelting Company (Limited), Mendips, near Wells.
The Mining Company of Ireland (Limited), Dublin.

ZINC.

Bagilt Zinc Company.
Vivian and Sons, Swansea.
William Marsden, Oldland Hall, near Bristol.
Kenrick and Son, Wynn Hall, Spelter Works, Ruabon.
Charles Titterton, Phœnix Zinc Works, Warrington Junction.
Dillwyn and Company, Swansea.
J. Collingborne, Spelter Works, Warmley, Bristol.
Joseph Thompson, Spelter Works, Carlisle.
Ryland Brothers, Warrington.
Richardson and Company, Swansea.
Crown Spelter Company.
Villiers Spelter Company, Morriston, Swansea.
Swan and Company, Maryhill, Glasgow.
Swansea Vale Spelter Company (Limited), Swansea.

PYRITES PRECIPITATE COMPANIES.

Duncan McKechnie, St. Helen's.
The Widnes Metal Company, Widnes.
The Tharsis Sulphur and Copper Company, Widnes.
" " " Hebburn; Newcastle.
" " " Birmingham.
" " " Glasgow and Cardiff.
N. Mathieson and Company, Widnes.
The Runcorn Soap and Alkali Company, Runcorn.
Wigg Brothers and Steele, Runcorn.
Newton Heath Copper Smelting Company, Manchester.
Muspratt Brothers and Huntley, Flint.
William Russell and Company, Newcastle.
The Bede Metal and Chemical Company, Jarrow, Newcastle.
W. Hunt and Sons, Leabrook, Wednesbury.
William Hunt, Brother, and Co., Castleford.
Harrison, Blair, and Company, Kearsley, Bolton, Lancashire.
Henderson and Company, Irvine.
H. Hills and Sons, Newcastle.
Eyton Copper Company, Mostyn.
Morris and Company, Doncaster.
W. D. Pochin and Company, Newcastle.
South Devon Metal and Chemical Company, South Down, Devonport.
H. G. Lord and Company, Calstock.
Holmbush and Kelly Bray Company, Callington.
Gibbs, Jackson, and Company, Newcastle.

ARSENIC.

Cornwall Arsenic Company, Hayle and Bissoe Bridge, Thomas Willis Field, Managing Partner, Marazion, Cornwall.
Devon Great Consols Mining Company (Limited), Tavistock.
J. B. Drayton and Company, Harrowbarrow, Callington.
English Arsenic Company, Roseworthy, Gwinear, Cornwall.
Palmer and Hall, Morriston, Swansea.
A. C. Hadland, Swansea.
Plympton Mining and Arsenical Company (Limited).
Okel Tor Arsenic Works, Calstock.
J. Paynter and Trythall, Bissoe Chemical Works, Devoran, Truro.
Holmbush Mining Company, Callington, Redmoor.
" " Greenhill.

BARYTES MANUFACTURERS.

Blackwell, George G., Garston, Liverpool.
Pegg, Harper, and Company, Derby.
Ellam, Jones, and Company, Derby.
Stevens Brothers, Matlock Bath.
C. H. Garton, Lumsdale, Matlock Bridge.
Wm. Hawley, Bonsall, near Matlock Bath.
E. Brown, Bonsall, near Matlock Bath.
Hegginbotham, Stoney Middleton, near Sheffield and Whaley Bridge.
Middleton Dale Barytes Company, Stoney Middleton, near Sheffield.
White and Company, Chapel-en-le-Frith, near Stockport.

NICKEL AND COBALT.

H. Hussey Vivian, M.P., Swansea.
Stephen H. Barker, Birmingham.
Henry Wiggin and Company, Birmingham.
W. Webb and Company, Aston, near Birmingham.
Sir J. Mason, Bromford, Birmingham.
J. H. Williamson, Stoke-upon-Trent.
Rawlins and Son, Liverpool.

GOLD AND SILVER REFINERS.

Vivian and Sons, Swansea.
Johnson, Matthey, and Company, London.
Brown and Wingrove, Wood street, Cheapside.
M. Rothschild and Co., Royal Mint Refinery.

SILVER ORE SMELTERS.

Vivian and Sons, Swansea.
Nevill, Druce, and Company, Llanelly.
Raphael and Company, Thomas-street, Limehouse.
Sheffield Smelting Company, Sheffield.
E. W. Oates and Co., Sheffield.

New Detonating Composition.—Trials have been made at the Austrian Arsenal of a new detonating composition, invented by an English engineer, and called by him "dynamoge." The initial velocity of the dynamoge when fired from a rifle was 323·9 to 353·6 mètres, against 295·6 to 302·2 mètres with gunpowder. The firing with the latter was more accurate, but this is partly attributed to want of confidence on the part of the men using the new composition. The cartridges were of the same bulk in both cases, and 50 rounds of each description were fired with great rapidity, when it was found that while the barrel of the rifle fired with gunpowder was so hot that it could no longer be held by the men, that fired with dynamoge was but little heated. The gunpowder also made the rifle very foul, but the dynamoge left so little residue that a piece of rag passed once through the barrel was sufficient to clean it. Very little flash and smoke were produced by the new composition.

MANUFACTURE OF PIG IRON.

In the ordinary process of running iron from the smelting furnace into the open sand troughs or moulds by which it is shaped into pig, the iron is too rapidly cooled and is chilled, and that in an irregular and unequal manner, so that the crystalline structure and the grey colour which are recognised as indicating high quality are not fully or uniformly developed. It is believed that too rapid cooling causes the carbon and silicon, which are held in solution or otherwise in the molten metal, to become chemically combined, or otherwise changed in a manner to cause a lower grade of pig iron to be produced. By the invention of Mr. J. B. Thorneycroft, of Portland Ironworks, at Hurlford, this deterioration is prevented, by avoiding the too rapid and unequal cooling, and for this purpose special moulds are provided, together with apparatus and arrangements for heating such moulds before the iron is run into them. The moulds are made of iron, or other suitable metal or material, and by preference in the form of open topped troughs, shaped internally to give approximately the usual form to the pigs cast in them, but by preference having ribs across their bottoms to form indentations across the pigs, so that the pigs may be easily broken. Each mould may be made for a single pig, or for two or more parallel pigs. The moulds may be arranged in a variety of ways, but according to one convenient arrangement a number of moulds are placed end to end, so as to form a row having a slight inclination downwards from one end of the row to the other, sufficient for the molten metal, which is led into the mould at the higher end of the row to run from one mould into the next. A number of the rows of moulds are placed parallel to each other, or in a radiating manner, as may be convenient, or suit the character of the ground surface about the furnace.

The molten metal on issuing from the tapping hole first passes along a short spout, or rhone, from the end of which it runs into the head of a radiating rhone, which is movable on a centre at its head, so that its delivering end can be set over any of the rows of moulds. If found necessary an adjustable delivering spout may be adapted to the end of the radiating rhone to direct the stream of metal properly into the moulds. At the junction of each mould with the next a moveable piece may be applied, being formed with a shallow groove across its top for the metal to flow over from one mould into the next. This movable piece bridges the joint between the two moulds, and it is by preference shaped with its bottom somewhat broader than its top, so that it is partly under the pigs. The bridge pieces are made with handles, and may be used for tilting up the pigs to facilitate their removal. When the bridge pieces are not used, grooves or indentations are by preference formed to be filled up with fire-clay or other suitable material, which will allow of the insertion of instruments to facilitate the removal of the pigs. For heating the moulds channels are formed in the bed built for carrying the moulds, and these channels are covered by the moulds, and thus made into flues, through which heated air or other gases are passed. The combustible gases leaving the smelting furnace are in every way advantageously applicable for heating the flues under the moulds, and may be ignited in those flues, the air necessary for their combustion being also supplied, and the gases being led from the flues to any convenient chimney. For some purposes it may be found desirable to employ vertical moulds, in which case the heating arrangements must be suitably modified.

River Tyne Improvement and Rock-Drilling Machinery.—On Wednesday, upon the occasion of the visit of the Marquis of Salisbury, Sir S. Northcote, and others to the Tyne improvement operations now going on, the opportunity was taken to witness the dredger, one of the most powerful in the world, which is now at work, and effecting a further improvement in the deepening of the river. The party also saw one of Cranston's submarine boring apparatus in practical operation. The apparatus is fixed upon one of the commissioners' floating pontoons, so that the work of boring the rock under the water can be pursued either at high or low tide. The surface of the rock is about 18 ft. below high water line. Holes, 3 in. diameter, 15 ft. deep, can be completed within two hours, and many of the holes are bored to a depth of 25 ft. This efficient apparatus, which acts with remarkable ease and simplicity, was only put to work last month, and has already bored over 900 ft. of blast holes 3 in. in diameter. The holes are bored for the purpose of blasting the rock in order to improve and deepen the bed of the river at Bill Point. After blasting the rock is raised by one of the dredgers, which transmits it into hoppers, and is then carried and emptied into the sea.

Economic Pump.—The pump-stock or barrel is, according to the invention of Mr. W. H. Triplett, of New York, provided at its lower end with a stop-valve and filter, and extends beneath the water level, and at its lower end receives the piston or plunger, whose rod extends to the upper end of the barrel, where it is provided with a handle for operating the pump. Around the upper end of the rod is a spiral spring held between a pin or collar on the rod and a guide fixed in the barrel, so that the spring tends to raise the rod after it is moved down, and thus assists the operation. On the upper part of the barrel is a nozzle provided with a cock, and which may be formed with a screwthread to receive a hose coupling. The air and water chamber or reservoir is secured around the lower portion of the barrel, the bottom of such reservoir being preferably just above the point reached by the plunger at its upward movement. In the barrel immediately above the bottom of the reservoir are holes for the passage of the water. The water raised by the plunger passes through these holes into the reservoir, and the air being thereby compressed in the upper part of the chamber the water is delivered in a continuous stream at equal pressure. By closing the cock in nozzle the pressure in the air chamber can be made as heavy as required, and on again opening the cock the water will be forced out. This form of pump can, therefore, be used simply to deliver the water at the nozzle or for sending it to a distance. The upper end of the barrel may be fitted with a T coupling, to which is attached a pipe for supplying water to the house, and also a pipe to which a hose is attached, both of the pipes being fitted with cocks for closing them when desired. A pivoted lever provided with a spring to assist its operation is connected with the plunger-rod, whereby the pump can be conveniently worked, but a crank-wheel may be used in place of the lever if desired.

The notice of the winding-up of the Cortonwood Collieries Company (Limited), which appeared in the Gazette and various other papers, does not, we are informed, refer to the Cortonwood Colliery Company now working the Cortonwood Collieries at Wombwell, near Barnsley.

The annual meeting of the Yorkshire Geological and Polytechnic Society was held at Bradford, on Wednesday, Mr. Arthur Briggs presiding. The report showed that there had been a slight increase of members during the year, and regretted the deaths of several prominent members. Several interesting papers were read, including one on the Vestiges of the Ancient Forests of part of the Pennine Chain, by Mr. Joseph Lucas, F.G.S., and one by Mr. J. P. Mortimer, F.G.S., on the Section of the Drift obtained by the New Drainage Works at Driffield.

A very interesting and successful telephonic experiment was made at Leeds, during one of Mr. Gladstone's great speeches. Telephonic communication was established between the Cloth Hall and the Liberal Club, and a number of the members were enabled to hear the Premier's speech as they sat in one of the club rooms. A wire was also connected with the offices of the National Telephone Company, and here a number of gentlemen were enabled to follow Mr. Gladstone intelligibly in his address. In both cases the telephonic receiver was fixed in front of the desk on the platform.

Mining Correspondence.

BRITISH MINES.

ASSHETON.—J. Garland, Oct. 12: The particulars of work done during the month ending 8th inst. are as follows:—The 92 west was driven 3 fms. 4 ft. 2 in., making the total distance driven west of engine-shaft 35 fms. 10 in. The lode is about 1 ft. wide, and shows spots of lead and copper ores. Driving has been suspended for the present, and the men put to drive the 40 west. The rise in the back of the 70 west was put up 3 fms. 5 ft. The lode is 2½ ft. wide, and yields a little saving work. Communication with the 60 will be effected this month. The rise in the 60 west of Hunt's cross-cut has been holed to the pitch above it this week, thus ventilating the pitch, and making available for the tributers the ore ground west of the rise. In the stope east of footway rise under the 40 west, 8 fms. 4 ft. 7 in. have been stoped. The lode is 2 ft. wide, and yields 1 ton of lead ore to the fathom. The driving of the 40 west, as mentioned above, has been resumed this week. To complete the cargo, we sold another 20 tons of lead ore on the 1st inst., three weeks in advance of the usual time. We shall have 50 tons of blende ready in a short time. We are now discharging about 70 tons of prop timber, planks, &c.

BEDFORD UNITED.—R. Goldsworthy, Oct. 12: North Lode: No lode has been taken down in the 127 and 115 since last report, driving being carried on by the side of the lode. In the 115 we have just intersected a small sparry cross-bunch dipping east about 2 ft. in a fathom. East of which there seems to be a better channel of ground, and we hope it will produce a change in the character of the lode.—Bridge Lode: The lode in the 20 east is about 2 ft. wide, carrying a branch of black ore and friable spar on the south part about 5 ins. wide, and from its present appearance I think it will open out wider. The lode in the western level and in Mr. Callan's engine-shaft is much the same as last reported.

BLUE HILLS.—S. Bennetts, R. Harris, Oct. 8: The 80 east end from the engine-shaft is worth 7l. per fathom, and is letting out a much greater quantity of water than usual, which we hope will drain the 66 at Letcher's shaft. The 42, east end from the Blue Burrow shaft, is worth 6l. per fathom. The 30 east end is worth 10l. per fathom.

BODIDRIS.—H. Hotchkiss, Oct. 12: The lode in the 60, east of new shaft, is slightly improved for lead ore this week, and the matrix of the lode is becoming more congenial for producing ore. The stope underneath this level is in a wide and most promising looking lode, which contains a mixture of lead ore and blende of very good quality. We are below this level with this stope about 12 ft., and in the present bottom the lode maintains that boldness which is characteristic of a good lode.

BWLCH UNITED.—Wm. Northey, Oct. 12: On Saturday last the following bargains were re-set:—The 50 east to four men, to drive at 5l. per ton for the month; the lode maintains its usual size and character as for some time past. The 12 east, under adit, has been re-set to four men to drive at 4l. 15s. per fathom, and to clear their own stuff for the month; the lode is 2 ft. in width, composed of a light blue killas, quartz, and a leader of lead ore 1 in. wide. No. 1 stope to six men, to stope in the back of the 12 under adit, and to remove their stuff to the 30, at 2l. 15s. per fathom; the lode will yield 18 cwts. of lead ore per fathom, and has every appearance of a further improvement. A rise in the back of the 12 west, re-set to four men at 5l. 10s. per fathom, and to clear their own stuff; the lode is producing saving work for the dressing floors. Tribute pitch, in the back of the 12, west of Ritchie's shaft, to two men, at 7l. 10s. per ton, delivered clear in the bin. Marven's lode, the 15 east under adit, to two men, to drive at 4l. 10s. per fathom, and to clear their own stuff. the lode is 2 ft. wide, carrying solid ribs of lead ore from 1 to 1½ in. wide. The stope in the back of the same level west, to six men, at 2l. 10s. per fathom; the lode will yield 15 cwts. of lead ore per fathom. To cross-cut south at the adit to Marvin's lode, to four men, clearing their own stuff, at 5l. 5s. per fathom; the men are making good progress. We have completed new ore slide, railways, and the new line of pulley stands, &c., to old engine-shaft, for drawing leadstuff from Marvin's lode; these are in daily use and working well, and as soon as the leadstuff which has accumulated is drawn to surface, and a better ventilation obtained, I intend to increase the number of hands stoping down the lead ore from the back of the 15. The carriers are busy delivering the 35 tons of lead ore purchased by Messrs. Goodhart and Co. All the machinery is working well, and dressing going on at full speed.

CALLINGTON CONSOLS.—T. Gregory, Oct. 12: The shaftmen are engaged in putting in the necessary timber, with bed-plank, &c., in Foakes's engine-shaft, below the 45; we shall complete this work in a day or two more, when the sinking of the shaft will be resumed in very favourable ground for progress and mineral. The lode in the 45 east is from 3½ to 4½ ft. wide, composed of congenial quartz, peach, prian, mundic, &c., and yields 1½ ton of ore per fathom, with occasional good stones of tin; the south part of the lode is not yet cut through. The silver-lead lode in the 45 north is composed of silicon, beautiful quartz, prian, and some lead ore, with a branch of carbonate of iron, full 4 in. wide, and is promising for a good deposit of rich silver ore.

CARNARVON COPPER.—J. Roberts, W. Darby, Oct. 11: In the stopes below the 80 the lode is of about the same value as reported last week. The eastern stope is worth 3½ tons of ore per fathom. The western stope is worth 4½ tons per fathom. In the 90 end the lode of copper which we had has become very poor, and the ground much firmer, and letting out a little water. In the rise at the 90 there is no change to notice since reported last week. We have just started a cross-cut at the 70 to intersect or reach the course of ore in the rise at the 90, and have also commenced the cross-cut at the 46 at Cae-y-Groes to try to cut Golden Venture branch.

CATHEDRAL CONSOLS.—Stephen Davey, Stephen Davey, jun., Oct. 13: Engine-Shaft: The lode in the 60, driving east of shaft, is 2½ ft. wide, producing rich stones of yellow and grey copper ore. The lode in the 60, driving west of shaft, is also 2½ ft. wide, and producing a little copper. Both ends have greatly improved in appearance since last report, as noted to you last week, and our progress in development of those points is good.—Laury's Shaft: This shaft is completed with dividing, casing, and footway to the adit level. The men are now engaged sinking below with the assistance of horse-whim to take away the stuff as broken. The lode in the shaft is 2½ ft. wide, producing some good stones of tin; the underlie will soon take it out of the shaft, but when we reach the 10 we shall at once prosecute this lode.

COTEHELE.—H. Bulford, Oct. 13: We are putting up a rise from the back of the adit. We are at the same time sinking from the surface to communicate with the rise. The lode is found to be mineralised quite up to the surface, 5 ft. in width, composed of copper and arsenical ore. The winze is now down 2 fms., and in a month the winze and rise will be communicated, laying open a splendid piece of stoping ground. We are also sinking below the adit. The lode is here 10 ft. wide—a really splendid lode. Timber is being put in to enable us to take away both back and bottom; which done, we shall have some thousands of tons of ore to take away. We have from 200 to 300 tons of work awaiting the stamps.

CROOKBURN.—Jacob Craig, Oct. 7: We commenced to drive west from the shaft on Monday morning, and are driving in the same strata as in the north cross-cut—the lazles immediately below the Tynebottom limestone. There is no change in the north cross-cut.

DENBIGHSHIRE CONSOLIDATED.—R. Prince, Oct. 13: In sinking below the 112 east main lode the lode maintains its size and productiveness, and has yielded well during the last month. No. 2 rise over the sump is improving as regards the yield of of lead. In the 112 out of the north cross-cut on the main lode, the vein is 2 ft. wide, and continues to yield the same quantity of ore as for some time past. The is also a good course of ore in the roof of the level. In driving from this level the lode has a very encouraging appearance, and we seem to be nearly into another valuable run of ore. We have been very busy dressing, and shall sell a parcel of ore of good quality on Saturday.

DERESBY MOUNTAIN.—J. Roberts, W. Sandoe, Oct. 12: In the No. 6 end during the month we have driven about 1½ fms., and the lode to-day is quite equal to anything we have reported it for the month. The ore bearing part is from 4 to 5 ft. wide, with two good walls, and a beautiful matrix of carbonate of lime and quartz. The lead is dispersed in strong patches and cubes through the lode, and worth 3 tons to the fathom. We have never seen a kindlier end in any mine, and if it continues for long it will open a splendid mine. The stope behind the end has not yet got fairly into the best part of the ore of the end, and having to rise up for stopes, it makes it rather spare for breaking, and so much ground cannot be taken away as could be if we had the ground open at one end. The lode is worth from 1 ton to 1½ tons to the fathom. We have cleared out the No. 4 level to the sump that was sunk by the former workers, and find that it is now perfectly dry, and there is a very strong lode in the bottom with good patches of lead in it, and corresponding very much with the lode in No. 6; but we find it to be a very difficult matter to work this without having an intermediate level, as the distance to sink would be 32 fms. We have, therefore, determined to try to bring up the No. 5 to that point, in order to do which we must first get to the heading side of the lode by the great stope to ascertain how far the old men have driven in that direction. In order to do this we have started to "spill" through the debris to the west of the great "stull," and have let it at 4l. per fathom to get through. It is quite impossible to say how long it will take, as the distance is unknown. If we find that this level is extended south to any great distance it will be an easy matter to get a winze down to the No. 6, and so open out shortly a splendid piece of ground. The stope at No. 5 on the hanging side of the lode is not turning out as was anticipated, but they may still improve. There is plenty of ground which ought to do well. We sent out samples last Monday for 30 tons to be sold on the 19th inst. Taking everything into account, the prospects of the mine were never so good as they are to-day.

DEVON CONSOLS.—Isaac Richards, Oct. 13: Wheal Josiah: In the 144, east of the Count House shaft on the new south lode, the lode is 4 ft. wide, composed of capel, quartz, peach, and a little mundic.—Wheal Emma, inclined Shaft: In the 137 east, east of Friend's cross-cut, the lode is 4 ft. wide, composed of capel, quartz, peach, prian, and small quantities of copper and mundic ores.—New Shaft, New South Lode: In Burgoyne's rise in the back of the 130 east, the lode is 2 ft. wide, composel of capel, quartz, peach, and copper ore; worth 1 ton, and 1 ton of mundic per fathom. In the 115 east, the lode is 2 ft. wide, composed of capel, quartz, peach, and copper ore, and worth 1 ton and 1 ton of mundic per fathom. In the 115 east, the lode is 2 ft. wide, of a promising character, and producing some copper and mundic ores.—Railway Shaft: In Bray's cross-cut south at the 205 the ground is highly mineralised, and tolerably favourable for progress. In the 190, west on the south part of the lode, the drivage is being continued by the side of the lode for more speedy progress. In the 175 west, on the south part of the lode, the lode is 4 ft wide, composed of capel, quartz, peach, and copper ore; worth 1 ton, and mundic worth 2 tons per fm., and promises improvement. Bray's rise, in the back of the 175 west on the south part of the lode, has been communicated with Rich's winze in the bottom of the 160. At the point of communication the lode is 5 ft. wide, and worth 5 tons of copper ore and 2 tons of mundic per fathom. This communication has laid open a good piece of ore ground, the lode being worth for the whole distance from the 160 to the 175, 3, 4, and 5 tons of copper ore per fathom, and from 2 to 3 tons of mundic per fathom. In the 160 west, on the south part of the lode, the lode is 2 ft. wide, composed of capel, quartz, peach, and small quantities of copper and mundic ores.—Watson's: In the cross-cut south at the 88 the ground is tolerably favourable for progress and congenial for mineral. In the western shaft, sinking below surface, the lode is 2 ft. wide, composed of capel, quartz, peach, mundic, and a little good quality copper ore.

DEVON COPPER AND BLENDE.—W. Skewis, Oct. 14: The shaft is being cleared below the 62 with all speed. The 62 is cleared between 30 and 40 fms. west of the cross-cut; this is let to clear at 5s. per fathom to the western shaft; the lode in the bottom of this level still continues to be worth 25l. per fathom. In the 50 west the lode is 5 ft. wide, composed of quartz, mundic, prian, and good stones of copper ore, altogether a very promising end, and from its appearance may make a good discovery of copper at any moment. No change to notice in Stacey's pitch in the bottom of this level, still being worth from 8l. to 10l. per fathom. The lode in the stope in the back of the 40 is not so good for blende, but improved for copper, and worth 25l. per fathom. In No. 2 stope in the back of this level east the lode is worth from 8l. to 10l. per fathom.

DEVON FRIENDSHIP.—Charles Thomas and Son, Oct. 13: We intend commencing to fork with the new wheel on Thursday next. The pitwork has been dropped to the 12 fm. level below adit, and we shall probably reach that depth before the next issue of the Journal. We shall lose no time in getting down to the 30, when we shall commence to rise against the winze. When this is holed it will give us much better ventilation and will enable us materially to increase our returns. The lode in the adit end east yields 5 tons of arsenical mundic per fathom, and the stopes continue to yield the usual quantities of arsenic. Although we have not yet commenced forking our returns of arsenic for October will somewhat exceed those for any previous month. We shall sell a parcel of tin next week. The surface work is progressing favourably, and we are making the best of the fine weather.

DEVON GREAT UNITED.—Isaac Richards, Oct. 13: In Willesford's shaft sinking below the 104 fm. level the lode is 3ft. wide, composed of capel, quartz, peach, prian, mundic, and a little copper ore. In the 60 fm. level west of Willesford's shaft on the Capel Tor lode the lode is 3 ft. wide, of a very promising character, and worth 1 ton of copper ore and 2 tons of mundic per fathom. In the 60 fm. level west of Watson's shaft on the Capel Tor lode the lode is 1½ ft. wide, composed principally of capel, with small quantities of copper and mundic ores. In the 50 fm. level west of Weston's shaft on the Capel Tor lode the lode is 2 ft. wide, composed of capel, quartz, peach, mundic, and a little copper ore. In the cross-cut south at the 20 fm. level east of Willesford's shaft the ground continues favourable for progress, and congenial for the production of mineral.

DRAKE WALLS.—Moses Bawden, Oct. 13.—We have successfully crossed the chasm left by the old workers, and started the adit level to drive south, so as to intersect the branches, which when intersected we shall extend the said level west to Mathew's shaft, which is distant about 20 fms. In the drivage which we shall rapidly accomplish by aid of rock drills we expect to lay open some valuable tin ground, which as soon as the communication with Mathew's shaft is effected can be taken away with great advantage to the company. At Mathew's shaft we have put in skip road to depth of adit—72 fms. from surface, and are now securing the engine-shaft, which we shall put in order to the same depth with new skip-road, and as we have ample winding power of the best description to command these two shafts we shall quickly come into the market with regular sales of black tin, of which we shall make our first sale shortly, and thereafter expect to make regular monthly sales. We have not yet cut into the copper lode, as we have had some repairs to do to the small engine, which has supplied the rock drill with compressed air, and has also drawn the stuff. We have now good ventilation all through the deep adit for its 400 fms. in length, but require the engine to draw the stuff from those employed at cutting through the copper lode. We have a mine now free from water charges for 72 fms. deep, and for this depth an unexplored length of lode of more than a mile, and I look for a great future for this company's property.

DUCHY.—P. Argall, Oct. 8: The 68 is continuing without change. The stopes over this level are producing good spathose iron and a little lead. The 60 is now worth 5 tons of blende per fathom. We have altered the course of the 50 to communicate with Hathorn's shaft, which is now down to the 50. In the 40, east of engine-shaft, we have got into old workings, in which we find stones of blende and iron pyrites; we are now sinking under this level to see if the blende is standing underneath. The stopes over the 40 and 20 continue as last reported.

EAST BLUE HILLS.—S. Bennetts, Oct. 13: The lode in the adit east end continues much the same as last reported, and worth 10l. to 12l. per fathom. In the 40 east end the part of the lode carried is small and poor, and quite unlike the lode in the other points of operation. We intend putting out a short cross-cut shortly to see if any other part may be the more promising. In the winze below the 30, some 10 fms. ahead of this end, the lode is 3 ft. wide, carrying a small leader of good tinstuff, and worth 7l. per fathom. The roof of the smithy and changing house is put on, and the house will be ready for occupation next week. The stamping of the tinstuff is being proceeded with.

EAST LONG RAKE.—H. B. Vercoe, Oct. 13: I am pleased to inform you that the mine has very much improved since the date of my last report, and at the present time I very much doubt whether any mine in the whole of the district can show richer stuff than is now to be seen in East Long Rake. The improvement referred to is in the 50, west on middle lode, where we have a fine rich mixture of ore for 3 ft. in width, and from the roof to the sole of the level, at the lowest calculation, the lode will yield 35 cwts. of lead per fathom, and promising to become much richer. We have driven through ore ground in this level for 35 yards in length, and the end to-day looks better than ever. I feel certain that in the piece of ground between our workings and the Old Long Rake there are thousands of tons of lead alone, and there are several other parallel lodes of equal value. The lode in the stope in the roof of the 50 west produces 12 cwts. of lead per fathom. In the 50 east there is no change since my last report; the lode produces a little lead, but not not enough to value. I have commenced a cross-cut in the 50 east, about 10 fms. behind the forebreast, to prove a portion of the lode gone off in that direction. The crushing mill has been fixed, and the carpenter is laying the floors of the house, and if we have sufficient water for dressing shall have no difficulty in selling 10 tons of ore at the next Holywell ticketing.

EAST ROMAN GRAVELS.—A. Waters, Oct. 13: The lode in the 109 south of shaft is about 2 ft. wide, producing good stones of lead ore and blende, worth about 8l. per fathom. The 109 north towards boundary shows a lode 5 ft. wide, worth 4 to 5 tons of lead ore per fathom. The lode in the 97 south is 3 ft. wide, producing good stones of lead ore and blende. The 97 north of winze is being driven alongside of the lode at present. The three stopes in back of the 86 south are together worth 3 tons of lead ore per fathom. The tribute pitch in back of 75 south is worth ¾ ton per fathom. The fixing of air pipes in connection with the compressor will have been finished by the end of the week. The new dressing machinery continues to work very well indeed.

EAST VAN.—W. H. Williams, Oct. 13: Cross-cut E.E. is driven 56½ fms. ground very wet, and mixed up with carbonate of lime, small spots of lead and copper; if we discover nothing better when we reach the footwall I shall put the men to drive east, but according to the section I sent you we have about another 5 fms. to cross before we reach the footwall. The men have resumed the driving of the cross-cut in Glangwden brook; we have a very pretty lode there, and I hope to be able to report good results before we reach the footwall.

EAST WHEAL ROSE.—T. Doidge, Oct. 8: Since my last the Penrose's shaftmen have put a collar to Williams's shaft. We found this clear to adit level, with many fathoms of casing, and dividing in proper position. We put men in places where it was required, and put in ladder-road. This being completed the shaftmen cleared the adit level from it east, and I am pleased to say we have completed it from this shaft to Foster's, and then on to Penrose's. I put the men that were clearing the adit east of Andrew's shaft, to clear the adit west from Williams's shaft. They are now in about 15 fms. from it. The adit men having completed the adit, west of Andrew's shaft, they are now clearing east of the same. You will observe that there is only a few fathoms more to clear, and we are attacking this at two points. North Wheal Rose shaftmen have put in the collar of Foster's shaft, and have nearly completed the collar of Baynard's shaft, which is about 50 fms. north of Penrose's shaft, on the north and south lode on the east and Middleton's lodes.—Surface Work: The walls of the engine-house for the 90 in. cylinder was completed on the 26th ult., and on Oct. 1 we completed the roof of the same; the masons are now building the stack. Good progress is being made at North Wheal Rose with the engine-house for the 100-in. engine; it is now 21 ft. high. The cylinder and case and one side of the bob of the 100-in. engine have been brought on the mine in the past week.

GLASGOW CARADON CONSOLS.—Wm. Taylor, Wm. J. Taylor, Oct. 9: In the 114 cross-cut south we have a beautiful channel of ground, improving as we are nearing the south lode, which we hope to reach this month. This cross-cut is gradually draining to the south lode in the 102, and as soon as it is dry we shall sink in the lode in the bottom of that level, which will be proving it at once; this is now an important point, which we are watching with much interest. In the 102 we are driving west on a middle branch or lode, probably the same we have been driving on in the 114, and on which we sunk a winze in the bottom of the 90 down to water; this is now drained, and we are sinking it by six men to communicate with the 102; have about 4 fms. to sink. West from the bottom of this winze we have driven through a good piece of ore ground, varying in value from 8l. to 15l. per fathom, the present end being worth 12l. per fathom, and equally good in the bottom; communication here will lay open this ground for stoping, and enable us to sink in the same run of ore to the 114, all now drained by that lode; these points are being pushed on as fast as possible. The stopes are valued at from 8l. to 10l. per fathom. Tribute pitches, on the whole, are about the same as last reported.

GLENROY LEAD.—R. Rowe, Oct. 12: In the shaft sinking below the 122 there is no change to report. In the 108, driving north, we have still a large lode, from 4 to 5 ft. wide, and containing a little lead and blende. The stope in the 25 level is not so rich as of late. We have a large lode mixed with blende, but now poor for lead.

GOGINAN.—J. Kitto and Son, Oct. 1: We are pleased to be able to inform you that our surface arrangements for a full and vigorous development of this mine are now nearly complete, except the fixing of the rock-boring machinery, and this, when delivered, will occupy but a few days. The western shaft has been drained to the bottom level 27 fms. below adit, and in the 15 we have made a trial or two in the lode which has resulted in our finding some very good lead ore, and so soon as the 27 is cleared and put into proper repair we shall proceed to prove the lode here also, when we shall expect to find it richer at this point than in the level above. We have tried the lode in several places along the side of the 20, west of Frances' shaft, and have already proved it productive of rich silver-lead ore for about 15 fms. in length, and as there are no other levels yet opened underneath this point, we regard the discovery as one of considerable importance, and in all probability will lead to most satisfactory results. We have nearly completed the line of flat rods from the new 50-ft. pumping-wheel, and shall connect them with the pump-rods in Frances' shaft in about a week from date, when we shall immediately commence to pump out the water to the bottom of the mine and open upon the course of the lode, where we have reason to expect we shall find good bunches of ore. Very satisfactory progress has been made since the date of our last report, and we hope to have everything in first-class working order before the end of the current month.

GOODEVERE.—R. Knott, Oct. 12: During the past week we have taken the men from the trial level, west of shaft, in order to get on with the other necessary work in hand, consequently we have no change at this point to report on. In both deep and shallow adit cross-cuts no change calling for remark. The surface work is progressing very satisfactorily, and the wheel pit will be completed by the end of this week.

GORSEDD AND MERLLYN.—W. Edwards, Oct. 13: In the 70 east the vein is getting wider and contains a little more lead ore than previously reported. In the 90 west the lode continues to be worth 26 cwt. of lead to the fathom. In the 50 west, on the north and south lode, we cut into a strong feeder of water this morning, and find a great deal of lead mixed in the stones that are being taken out of the forebreast. I feel sure we are close upon a great body of lead ore. The men have driven 3½ yards since last report. No I pitch in the roof of 70 east is worth 13 cwt. of lead to the fathom; No. 2, 14 cwt.; and No. 3, 14 cwt. We are very busy dressing lead, and I expect to have good news to send you in a few days.

GREAT HOLWAY.—W. T. Harris, Oct. 13: Roskell's Shaft: The lode in the 119 east is 2½ ft. wide, of the same character as for some time past. To-day we cut into a strong feed of water. This level, west of the lode, is 4 ft. wide, of a most promising character and easy for progress. This end never presented a more encouraging appearance, and I am daily expecting an important discovery to be made. In the 80 west the lode is becoming regular, and contains a fair quantity of blende and a little lead ore.—Garden Shaft: The stope in the back of the 55 level east of No. 2 continues to yield some good lead and blende, and promising for an improvement. In the 55 west upon south lode the branch is increasing in width, and contains lead in paying quantities. Expect to report more fully in my next.—Office Shaft: The pitch in bottom of the 60 west is producing 1½ tons blende and 8 cwts. of lead ore per fathom; no change in the pitch in back of this level.—Brammock Shaft: No. 1 pitch in bottom of the 40 level east is worth 5 cwts. lead ore and 2 tons blende per fathom. The pitch in back of the 60 level is producing 15 cwts. lead ore per fathom. No. 3 pitch is worth 8 cwts. of lead and 1½ tons blende per fathom.——Level Engine: This section of the mine continues to open up splendidly. No. 1 pitch in back of 60 level is worth 2½ tons lead ore and 1½ ton blende per fathom; No. 5 is producing 4½ tons lead ore per fathom; No. 6 is worth 4½ tons lead ore per fathom; No. 2 pitch is producing 1 ton of lead ore and 2 tons of blende per fathom. The lode in the forebreast is 3 ft. wide, containing good quantities of lead ore and blende. Surface and dressing operations are making the usual progress, and hope to have 30 tons of lead ore ready for sale by Saturday; I shall also sell 40 tons of blende on that day.

GREAT POLGOOTH UNITED.—William Richards, Oct. 12: Since my last monthly report we have driven and well secured with timber the deep adit level east on the course of the old mine; lode about 9 fms. This end continues to open up good stamping work. In the cross-cut driving north of this level and east of the cross-course to intersect Rag's lode we have driven 4 fms.; the ground is favourable for progress, and as far as we can ascertain there are as yet about 6 fms. further to drive to meet with the lode. This work we hope to accomplish in about a month.—Wheeler's Lode: We have cleared and repaired the level on the course of this lode east of the cross-cut 70 fms.; the lode throughout this drivage is well defined, embedded in easy ground, and will produce average tinstone. The lode in the present end is about 2 ft. wide, and will yield good work for the stamps. At this point there is a cross-cut driven north, evidently to intersect our north lode, but we have not sufficiently cleared this level to enable us to know whether it has intersected it. This we shall prove as early as possible, but this end being such a great distance from the shaft the air is poor, which materially impedes our progress. The new shaft on Wheeler's lode has been sunk about 7 fms. this month, and the lode, which is productive and promising, maintains its size and character. We shall discontinue to sink here and commence to cut down and enlarge a shaft further north that will make a good permanent working shaft, erect a horse whim to push on with the sinking in order to ventilate and open up the long run of tin ground between the two shafts. Until this is holed to the level below this ground cannot be developed for the want of ventilation and facilities for removing the stuff.—No. 2 Shaft: We have cut a plat, cased, and divided the shaft, put in a footway, and sunk about 6 ft.; the lode is of much the same character as previously reported. I expect the lodes will form a junction here at an early date.—North Shaft: In the cross-cut driving south to intersect the north lode overlaying the great elvan course, the ground has been spare for driving, but now the ground is changed and easier for working, and indicate the lode to be in close proximity, and daily expecting to cut it; this level has been extended about 9 fms. this month.—Surface: Operations have been pushed on. The masons will complete the building of the engine-house in a few days. We are clearing foundations for dry, and preparing other necessary work.

GREAT RETALLACK.—J. Harris, Oct. 8: I am pleased to tell you that better progress has been made in the 64 east during the past week, and a decided change for the better is showing itself in the bottom of the end, with a good leader of solid blende for 4 in. wide and 2 ft. high coming up from the bottom of the level, with all the evidence for a further improvement, and I am hoping in my next to report a lode of value. I have re-set the driving of the end at 6l. per month, and I am anticipating much better progress in future.

GREAT WEST CHIVERTON.—John Curtis, Oct. 12: We have found two lodes in cosseaning in the valley, each one containing a large quanilty of mundic, but do not find any lead to speak of. We are now driving the deep adit level at 65l. per fathom; lode composed of yellow mundic, prian, and spar, a very kindly looking lode to produce ore.

GREEN HURTH.—Jas. Polglase, Oct. 7: I beg to hand you the value of the workings, &c.:—1. Level over the standage level north is worth 6 tons per fathom. 2. Bottom level south of Swan shaft, for taking down side of level, is not yielding sufficient to value at present. 3. Stope near Swan shaft, above the 30, is yielding 8 cwts. per fathom. 4. Lower stope, going to Vipond's sump, is yielding 3 tons per fathom. 5. Upper stope, going to Vipond's sump, is yielding 5 tons per fathom. 6. The 31 level north is not yielding sufficient to value. 7. Stope near Robinson's sump above the 30 is yielding 12 cwts. per fathom. Cross-cut south from adit level going on without change. We are now driving over the standage level, and have advanced beyond the level just below. The Bottom Level south of Swan Shaft: Here the vein split into two branches, the branch containing the most mineral properties was followed, but soon deviated from its usual bearing and appearance. We have now taken down a slice off the east side, and although it is poor and small at present will doubtless again improve. The changes seen in this level are only the usual occurrences of the most productive veins in all mining districts. The 31 level north is poor, but most certainly better things are in store at this point shortly.

GUNNISLAKE (CLITTERS).—W. Skewis, J. C. Seccombe: There is no change to notice in any of the pitches or bargains since last report, other than that the lode in the 200 west is now worth 12l. per fathom. Full particulars will be set forth in the report for the general meeting.

GWYDYR AMALGAMATED.—J. Roberts, W. Sandoe, Oct. 12: Clementina: The north end at the 34 is rather improved since last week. The south end at the same level is without any change to notice. The shaft is going down very satisfactorily, but no lead yet to value.—Aberllyn: The winze at No. 2 is without much change. The lode is underlying a little flatter than it was, and looking very well for blende. The No. 2 end is loosing the flat that we spoke of last week, and no doubt in a week or two the lode will get again quite defined. The end is very much wetter, and the water has gone down in the shaft at surface about 2 yards, which shows that we are getting with the end into its neighbourhood.

HINGSTON DOWN.—T. Richards, Oct. 12: There is no material change in the engine-shaft sinking below the 12; fair progress is still being made, and if the ground continues as at present sufficient depth will be reached for the development of other levels in a very satisfactory manner. In the 12 east of the shaft the lode is in its general character very promising, and producing in places rich stones of copper ore. No. 1 lode in the deep adit level, east of the south cross-cut, is larger, principally capel, with some quartz and a little black and yellow copper ore intermixed.

KIRK MICHAEL.—R. Rowe, Oct. 12: The lode in the shaft sinking below the 20 fm. level has improved again, as I expected. The leader part is about 8 in., composed of a most congenial quartz and lead. On account of a slight accident, the sinking will be delayed till Saturday. The 20, driving south, is not yet through the slide, now into it 8 fms. We see daily in the driving small pieces of lead and blende, showing that the slide is mineralised, and much in favour of the lode when found on the other side of it. In the 20 end north we have cross-cut the lode during the week, and to-day came upon the footwall of the lode, with a good rib of lead about 6 in. wide. I hope to be able to give a good report of this in my next.

KIT HILL GREAT CONSOLS.—Isaac Richards, Oct. 13: In the deep adit level fair progress in driving is being made. The surface erections are progressing satisfactorily. Portions of the engine are being received on the mine, and we hope in the course of ten days to have the engine at work.

LADY ASHBURTON (Silver).—Captain J. Willcocks writes: We are going on well at the mine. I hope to see the south underlayer and cut through it by the end of this week, when I will at once inform you as to its character. To the west of the engine-shaft we are driving north on the slide, which is now producing some beautiful stones of white iron, which is the mother of silver. This branch of white iron is of good size, and I never saw a prettier branch of iron in my lifetime for the production of silver. We have driven the cross-cut north on the slide about 9 ft., and should be continued 3 fms. further north, as I am aware there are branches gone down behind the engine-shaft, and perhaps the main part of the lode. The following is an assay made from a fair sample taken out of the 30 fm. level:—Copper, 20·46 per cent.; silver, 13 ozs. 13 dwt. per ton of 20 cwt.

LADY BERTHA UNITED.—Thos. Neill, Oct. 12: I am pleased to state that we have cleared the 30, east of new shaft, the first 10 fms. of which show indications of a good lode through most of the ground which has been taken away. The remainder shows that the lode will average from 5 to 6 ft. wide, composed of capel, spar, and rich mundic and copper ore, and will produce from 7 to 8 tons of mundic and 3 to 4 tons of copper ore per fathom, which clearly shows that we have altogether a very promising and strong lode. We, therefore, intend extending the different points east of the great cross-courses, where we fully believe to lay open one of the best mines in the district. We have also a large quantity of ground standing from the 30 to the 40, and we intend after the different levels are all cleared in this part of the mine to put men and stope the same, where large quantities of mundic and copper will be broken. The stope in the 40, east of the engine-shaft, is still looking extremely well, and producing the usual quantity of mundic and copper. All other points are without change. We anticipate shipping about 300 tons of mundic this week, and we have a large quantity of it at surface, which we are busily engaged in preparing for sampling.

LEAD ERA.—J. A. Ede, Oct. 13: The ground in the level continues stubborn in showing any evidence of a change. The strike of the flat is still at right angles to the lode, so that our progress if somewhat less in speed is, nevertheless, more direct for the points at issue. Every yard we drive brings us nearer to ground, having a most favourable superficial arrangement, an important consideration wherever deposits of ore of the nature of that we are in search of exists.

LLANDEGLA.—H. Hotchkiss, Oct. 12: In the 36 yards west of shaft the lode is of its usual size, full width of the driving, and is chiefly composed of spar. I am pleased to say that our prospects in the 25 yards level, and east of shaft, are becoming more cheerful. After rising about 1 ft. 6 in. we met with some good stones of lead ore in the lode, and which is now forming into two solid ribs from 1 to 2 in. wide, each embedded in good mineral ground. The very kindly appearance of this place leads me to expect a further improvement will follow, of which I will keep you well informed.

LOMAX.—W. Argall, Oct. 12: The lode in the end, on Tatie Pie lode, is improving, now about 1 ft. wide, producing good stones of iron pyrites. The country is more congenial, and we may expect to cut lead shortly.

LOVELL.—J. Prisk, Oct. 13: The lode in the sump winze on Howman lode is 7 ft. wide, worth 18l. per fathom, and looking well. The lode in the stope in the back of the 40, east of Howman shaft, is worth 9l. per fathom; the lode in No. 2 stope in the said level is worth 10l. per fathom. The lode in the stope in the 12 fm. level is worth 12l. per fathom.—New North Lode: The new engine-shaft is complete to the 10 fm. level and the pitwork fixed. The engine will be ready to start on Saturday, and early in the coming week sinking will be resumed by a full staff of men in a good and profitable lode. The ground in this part of the mine is exceedingly easy for working, and from present appearances paying tin-ground will be rapidly opened up. The tin in this new lode is the very best quality and free from impurities.

MELLANEAR.—J. Gilbert, Oct. 12: The cross-cut in the 30, driving south of Gundry's shaft, is now extended about 37 fms. south of the main lode, and the last 20 fms. has been through a very fine elvan course, which is strongly mineralised and easy for driving. The ground is getting intermixed with small veins of mundic and copper ore in the 60 cross-cut driving south of the main lode west of Gundry's shaft, and appears to be getting near the south part of

the lode. In the 70 cross-cut, driving north of the main lode west of Gun shaft, the water is still increasing a little, and the ground continues very promising for yielding copper ore. In the 80, driving west of Gundry's shaft on the north part of the lode, the lode is 4 ft. wide, and yielding 3 tons of ore per fathom. There is no change in the 90 cross-cut, driving north (west of Gundry's shaft), and we are expecting daily to intersect the north part of the lode. In the 110, driving west of Gundry's shaft on the south part of the lode, the lode is 3 ft. wide, yielding 2½ tons of ore per fathom, and looking promising for an improvement. The part of the lode carrying in the 110, driving east of shaft, is 4 ft. wide, and yielding 1½ ton of ore per fathom, with more lode in the south side of level. In the 120, driving north of Gundry's shaft to cut the main lode, the ground has improved for driving, and our progress will be much better. We are engaged in casing and dividing the shaft from the 110 to the 120 to get the whim to draw the stuff from the bottom level. The lode is 2 ft. wide in the 110, driving west from the old engine-shaft, and yielding stones of mundic and copper ore, and letting out a good deal of water. We expect to meet with the cross course very soon. In the 110, driving east from the old engine-shaft, the lode is 5 ft. wide, and yielding some good stones of copper and saving work for tin. The lode is 4 ft. wide in the winze sinking in the bottom of the 90, west of Gundry's shaft, and yielding 4 tons of ore per fathom. The rise in the back of the 110, west of Gundry's shaft, is yielding 2 tons of ore per fathom, the lode being 4 ft. wide.

MOELFRE.—James Richards, Oct. 13: Since my last report good progress is being made in the driving of the deep adit cross-cut towards the lode. The ground is highly mineralised, with a quantity of water issuing from the forebreast, indicating the near approach of another lode. There are, I believe, several other lodes in addition to the three already intersected running through this property, and from the highly metalliferous nature of the ground these lodes must contain large quantities of mineral at a reasonable depth. I am pushing on with the driving of this level with all possible dispatch, feeling convinced that the lode when cut will prove to be of very great importance from the very fact of this lode being 24 ft. wide only 3 fms. below the surface, containing for the full width carbonate of lime, a quantity of flookan, with a small quantity of lead ore from wall to wall. The present deep adit level will intersect this lode about from 25 to 30 fms. deep, and judging from the very favourable character of the same at the surface we may certainly anticipate a good lode at this point. Nothing on my part shall be wanting in order to obtain this desirable object as early as possible.

MONA.—Wm. Hughes, Oct. 12: Since my last report all the operations of the concern, both underground and at surface, have been carried on in a regular manner, and with satisfactory results. The quantity of ore raised will be quite equal to the estimate made at the beginning of the month; and, judging by present appearances, an increase in our returns from underground may be calculated on shortly. All the tribute bargains continue to look well, and as we are now able to open up the ground in a more miner-like manner than heretofore, and shall very soon be in a position to effect communications between the 55, the 70, and the 80 we shall be in a position at no distant date to take away the ore at a much lower price for tribute. We are now busily engaged in effecting communication between the 70 and the 55. When this is completed a large proportion of the ore raised will come direct to the shaft instead of being trammed by the 55 at a cost of much labour and loss of time. At the bluestone workings we have entered into another large underground excavation, apparently of very ancient date. The copper ore appears to have been worked away, but the bluestone, which invariably underlies copper ore in this part of the mine, remains intact. It is as yet difficult to estimate what quantity may be obtained here until the rubbish, which has accumulated in the course of years, has been removed; but, so far as we have been able to examine the lode, we are strongly inclined to the opinion that the deposit is of great extent. The bluestone thus discovered appears to be of very fine quality. In the eastern part of the mine we have cleared out Tiddy's shaft—a shaft sunk to the 30—and are preparing to drive south at the 22, so as to cut the Charlotte lode, the Carreg-y-Doll lode, the Golden Venture lode, and the bluestone lode. This cross-cut will thus be driven under the old workings of vast extent, which proved highly profitable in former times, and will in all probability open out a most important portion of our sett. The accompanying section of the ground now made, for the information of our board, will explain the proposed driving and illustrate the importance of the operation. As you will perceive, the Charlotte lode will be cut at once, the Carreg-y-Doll lode is only 15 fms. distant, the Golden Venture lode comes in at 40 fms., and the Great Bluestone lode at about 70 fms., while there is every chance of our meeting with strings and lodes which are not represented in the section. The surface department all goes on with regularity. The list of sales sent you yesterday will show that we have carried down and sold large quantities of ochre. In the smelting department all goes on as usual, but we have been rather hindered in our work by the falling in of one furnace; this has now been repaired, and we proceed in full swing. We hope very soon to have a fifth furnace at work; the stack is nearly completed. The produce of the last lot of regulus sold has not yet been completed, but it will probably make from 49 to 50 per cent.

MORFA DU.—T. Mitchell, Oct. 12: We have no change to notice in the stopes at the 60, as the men have been engaged for some time about the boiler, raising stones, &c. The stopes at the 48 have very much improvtd these last few days. The lode is opening out wider, and the ore is getting more solid and compact. The pitch at the 36 is without any change to notice. The driving at the 20, near Ida shaft, is looking very well, and opening up some good ground. We hope to get the other boiler connected with the present one in a day or two, which will give us plenty of steam power for carrying on the pumping and winding at the same time. We shall sample to-morrow a parcel of copper ore from 60 to 70 tons.

MOUNTS BAY CONSOLS.—Wm. Argall, John James, Thomas Laity, Oct. 8: Trebarvah: We have set the engine-shart to sink by nine men, at 15*l.* per fm. In our next report we shall be able to give further particulars about this point. The 50 end, west of engine-shaft, is being driven by six men, at 4*l.* per fm.; here there are three branches converging together; the south branch produces occasional stones of good copper, mixed with a deal of blende. The other branches are composed of quartz of a beautiful nature. We may daily expect a good improvement here. The 40, west of engine-shaft, is driving by four men, at 2*l.* 15s. per fm. and 3s. 6d. per ton, for saving the arsenical pyrites. Here there is a strong masterly lode, 3 ft. wide, composed of arsenical pyrites and white spathose iron. The 30, west of engine-shaft, we are driving by four men, at 2*l.* 5s. per fm. and 3s. 6d. per ton for the arsenical pyrites. The lode at this point is from 1½ to 2 ft. wide, composed of arsenical pyrites, quartz, and a little white spathose iron. Since our last report we put the winze men to drive a cross-cut west of Richaras's flat-rod shaft to cut a branch of ore going up behind the 40, which has now been cut, and is from 4 to 6 in. wide, producing good stones of copper ore. We think this ground will pay for stoping. These six men are now being put to resume the sinking of the winze at 4*l.* per fm. We shall give the value in our next. We are sinking Richards' flat-rod shaft by six men, at 14*l.* per fathom; the lode in the shaft is about 2 ft. wide, composed mostly of a congenial quartz. After this shaft has been sunk 5 fms. we shall then drive and stope under the ore ground already reported on. The 50 fm. level, east of Richard's flat-rod shaft, is being driven by four men, at 8*l.* per fathom. At this point the ground is hard and the lode small. No. 1 stope, in the back of the 50, is set to four men, at 55s. per fathom; lode worth 1½ ton of copper ore per fathom. No. 2 stope, in the same level, is working by two men at 50s. per fathom; the lode is worth fully 1 ton per fathom. We are making good progress in our underground operations, but it will take a little time to open up new ground. All our machinery throughout the mine is working very well.—Sydney Cove: In the level on Browne's lode going east the lode is 1½ ft. wide; this place being so shallow the lode is still disordered. West of this working we have gone over about 25 fms. of good tin paying ground in the bottom of the level, and so far as can be seen the tin appears to be dipping west, and we purpose taking the men from the end, and sinking a shaft further west to prove the ground in that direction to the depth of the water. The tin ground reported on before in the bottom of the level cannot be further worked until we get our engine up, and level driven under it. In the new eastern shaft we have just cut the lode, and so far as we can see it is about 6 in. wide, containing copper and iron pyrites. The western cross-cut is driven by two men, at 2*l.* 10s. per fm.; the ground is easier, and more congenial, having cut into several branches of iron pyrites in the country, and the end letting out more water. The masons are making good progress with the engine loading, and will be ready for the engineers to work on in a few days. All surface operations going on satisfactorily.—Pembro: At the engine-shaft we are cutting ground to case and divide it to the adit level. Innes's lode is still being driven by two men, at 30s. per fathom; the lode is 2 ft. wide, producing occasional stones of iron pyrites. The No. 7 lode is driving by two men, at 30s. per fathom; the lode still maintains its size and appearance. The masons will finish the engine loading next week, so that the engineers may soon be at work. We are putting up carpenter's shop and making engine pond, and the general surface works are being pushed forward rapidly.

MOUNT CARBIS.—W. Tregay, Geo. Johns, Oct. 13: The lode in the 38 east end is producing rich stones of tin, and as this end is approaching the rich tin ground gone down in the bottom of the level above we expect early improvement. The lode in the 38 west produces stones of tin, and is a very promising lode. The great flat lode has not yet been opened at this level. We purpose cross-cutting towards it, having about 20 fms. to drive in moderate killas ground. This lode being so rich in the neighbouring mines, and recently so greatly improved in Wheal Uny, is of the greatest importance in this mine, especially as where we have seen it near the surface it has produced stones of tin of the richest description. In the 27 east end the lode is worth 10*l.* per fathom, and presents every indication of improvement. In the winze, sinking under the 27 east, the lode is worth 20*l.* per fathom, but as the richer tin ground further east is dipping under this winze we expect improvement. In the winze, sinking under the 27 west, the lode is worth 12*l.* per fathom, and improving. In the deep adit end the lode is worth 20*l.* per fathom. We have not made much progress here of late from want of ventilation, &c. We have now cut the level larger, thereby improving the ventilation and facilities for bringing away the stuff, and hope to make good progress in the future in getting forward this adit. The engine is working exceedingly well.

MYNYDD GORDDU.—Thomas Kemp, Oct. 12: At Burnett's engine-shaft during the past week the men in the 46 end west of cross-cut have squared up the driving to the end of cavity reported in my last, and have also extended west about 2 ft. The ore-bearing part of the lode in the forebreast to-day is about 2½ ft. wide, strongly intermixed with lead ore, worth about 6*l.* per fathom, and there is every appearance that, as the drivage proceeds the lode will improve. The part of the lode opened on by the 46 end east of cross-cut is without any material change to notice, composed of calc spar intermixed with a little killas, strongly impregnated with mundic, and at times shows occasional spets of ore; the ground here is very stiff and spare for breaking. The part of the lode carried in ainking the winze below the 34 is principally killas carrying ribs of calc spar, showing a little ore; the lode is extremely tight for opening, consequently very slow progress is being made. Nothing has been done in the 12 west of shaft since last report; the men from this bargain were removed in order to assist the carpenter and smith in fixing counter balance bob to pumping-wheel, &c., which work will be completed in the course of a few days. The different stopes throughout the mine continue to yield as last reported. We are to-day carting 10 tons of silver-lead ore to the station, which will be forwarded to Messrs. Goodhart and Co. to-morrow morning. Machinery in good condition, and all the work throughout the mine is being pushed with all energy.

NEW HOLMBUSH.—H. Bennetts, Oct. 4: We have nine men engaged in clearing the cross-cut to the Flapjack lode at the 120 at the engine-shaft, and putting in tramroad. We have already cleared, secured, and put in tramroad for a distance of 70 fathoms, and in about a week or ten days more we expect to complete the tramroad as far south as the Flapjack lode. We shall then ear the 120 both east and west on the Flapjack lode, and commence stoping as on as possible. I have not yet been able to thoroughly examine the lode tween this point and the 100, as there are no ladder-roads fixed to enable me to get to the old workings, and until the level is cleared it is impossible to get in the ladders, and fix them in their places. I have, however, managed with great difficulty to get up in one plaee, and find there is large lode of arsenical mundic, with a little copper ore, but I could not thoroughly examine it, on account of the state of the old workings, which were in a very dangerous condition. We have cleared Wall's shaft from the 100 to the 80, and the 100 cross-cut north and the 100 west, on the Holmbush lode, for a distance of 65 fathoms. We have also cleared the 100 cross-cut south to the Flapjack lode 12 fathoms. During the past month we have had 15 men engaged in this work. We have still a full pare of men engaged in clearing the 100 cross-cut south to the Flapjack lode, and have about 20 fms. more to clear in order to reach the lode. When this is reached I shall be in a position to report fully as to the 100 and 110 fm. levels, on the Flapjack lode, where we expect to find very large quantities of arsenic mundic, mixed with copper ore. We have four men rising in the back of the 50, east of Wall's shaft; the lode has been rather disordered by a small cross-course, but now improving both for size and quality. The 35 to drive east of Bray's shaft, by four men; the lode is yielding good quality arsenical mundic. We have three stopes in the back of the 100, west of Wall's shaft, by 16 men; the lode is very rich for arsenical mundic. Three stopes in the back of the 80, east of Wall's shaft, by 16 men; the lode is producing good arsenical mundic, Three stopes in the back of the 80, west of Bray's shaft, by 14 men; lode producing good arsenical mundic. A stope in the back of the 80, east of Bray's shaft, by two men; lode producing good arsenical mundic, with stones of copper ore. A stope in the back of the 70, west of Wall's shaft, by four men; lode yielding good arsenical mundic and a little copper ore. A stope in the bottom of the 60, east of Wall's shaft, by four men; lode producing arsenical mundic of average quality. Two stopes in the back of the 60, west of Bray's shaft, by six men; lode producing rich arsenical mundic. Two stopes in the back of the 40, west of Wall's shaft, by six men; lode producing good arsenical mundic and a little copper ore. Two stopes in the back of the 40, west of Bray's shaft, by six men; lode yielding rich arsenical mundic. A stope in the bottom of the 30, on the Flapjack lode, by four men; lode yielding arsenical mundic of good quality.

NEW GREAT WHEAL VOR.—H. Cowling, Oct, 11: Our lode is a beauty. We brought to surface this day the richest parcel of tiustuff thas was ever brought up since our commencement. The lode is just the same size as last week—6 ft. wide—but a little richer. I do not believe the oldest miner living ever saw such a lode—so large and rich so near the surface. We brought up this day from the blasting of a hole a rock of tin, that two men went to roll it to the pile; a splendid rock of tin.

NEW KITTY.—Wm. Vivian, Oct. 13: The lode in the 24 fm. level, driving east, is 2 ft. wide, and very kindly in appearance, producing a little tin, but not to value. We have let a tribute pitch in the bottom of the 14 fms. level, to four men at 13s. 4d. tribute. No change to notice in the other points of operation since last week. In the absence of any change one way or the other I purpose reporting on this mine in future every other week.

NEW PENROSE.—J. Curtis, Oct. 11: The ground in the deep adit is more easy for driving, and letting out more water as the level is extended; price for driving, 5*l.* per fm. The engine-shaft is cleared 12 fms. below the surface. In the last 6 ft. it has been in the water, and when drawn out it does not rise again in the shaft, which clearly proves it is drained by the deep adit.

NEW WEST CARADON.—N. Richards, Oct. 12: No lode has been taken down in the 42 fm. level west of Hallett's cross-course for the last week. The lode in this level east of cross-course will yield about 1 ton of good ore per fathom. The lode in the rise in the back of this level fully maintains its size and value. Two stopes, one east and the other west of same, will yield in the aggregate 4 to 5 tons of copper ore per fathom. We shall not open out on the branch intersected last week in the 38 fm. level south of Hallett's shaft for the present, or until the cross-cut is driven away a little distance from same. The mine is looking well.

NORTHERN LEAD.—Thomas Tonkin, Oct. 13: The tribute ground above the 42 fm. level, west section, is looking well and yields 25 cwts. of ore to the fathom, and the 15 fm. level stopes 12 cwt. to the fathom. There is abundance of water for dressing purposes.—Brandon Walls; We have put the water-wheel in motion and the pumps are in fair working order. In a short time now we will get the water under.

NORTH D'ERESBY MOUNTAIN.—R. H. Vivian, Oct. 13: In cross-cutting through the lode from the bottom of this shaft, we have the most promising vein I have seen for some time. It contains quite double the quantity of carbonate of lime compared to anything we have previously met with in this mine. I look upon this change as very encouraging, and am daily expecting to cut into a good body of lead ore. The lode maintains its value for lead—viz., ½ ton to the fathom.

NORTH GREEN HURTH.—J. Polglase, Oct. 7: I have nothing new to report either from the lower or upper levels. The costeaning is not without promise. We find plenty of vein matter, and hope to succeed in finding the vein from which all this proceeds.

NORTH HERODSFOOT.—T. Trelease, Oct. 13: We have dropped ladders down about 6 fms. below the 106, and find the shaft clear, but the old timber is in a very bad condition; it will have to be taken ont and new put in. We have been very much retarded in the past week by a lot of old timber, with cistern, and a set of bearers, which we have had to cut up and remove, but hope we shall make a little better progress in the future. We have not taken down any lode in the 80 end in the past week. The No. 1 stope continues to yield 8 cwt. per fathom, and the No. 2 stope has improved a little, and will now yield 8 cwt. per fathom also. The lode in the 50 is still split up in branches, but the ground is easier, and more congenial for lead ore, and I hope it will improve again as we get away from the slide; the stope in back of this level will yield 7 cwt. of ore per fathom. We are getting on as fast as possible with the dressing and other work at surface, and hope to get a parcel of ore for sale in about a fortnight.

NORTH PENSTRUTHAL.—Stephen Davy, Wm. Polkinghorne, Oct. 13: The Highburrow shaftmen are now engaged cutting cistern plat, bearer hitches, &c., for fixing standing lift to the 120 fm. level, previous to sinking further with present long lift. The lode in the 120 fm. level driving west of shaft is 4 ft. wide, composed of quartz. flour-spar, mundic, and a small precentage of copper ore. We have commenced to drive a cross-cut south at the 120 fm. level, east of shaft, on the cross-course, to intersect the south part of the lode, which was most productive in the level above. The lode in the 108 fm. level driving west of shaft on No. 1 is 4 ft. wide, producing stamping work. In the 108 fm. level driving east on No. 2 lode the lode is still disordered by the elvan. We have no change to report in rise in back of 88, or in the winze sinking below the 72 fm. level. In the 58 fm. level cross-cut driving north we have met with a change of ground, which is letting out water freely, and indicates our near approach to the lode. The stopes on Ward's lode are looking a little better, and producing more tin.

NORTH WALES FREEHOLD COPPER AND SMELTING.—H. B. Vercoe, D. Douglas, Oct. 12: We beg to hand you the following fortnightly report on the above mines: At the engine-shaft we are busily engaged cutting lodge and sinking, also making space ready for cistern and tramroad; present depth about 7 ft. below the 30 fm. level. Ladders and air-pipes have been fixed from surface to the bottom, so that the men can now climb instead of keeping a man at the engine to raise and lower them. The 30 fm. level cross-cut has penetrated the great copper lode about 9 ft.; the character of the lode in the extreme forebreast is a hard quartz spotted with copper. We do not expect to reach the footwall or main ore-bearing portion of the lode until 2 fms. more have been driven, and having regard to the fact that the lode in No. 2 sump is becoming richer as depth is attained. We are very sanguine of finding the lode rich in this 30 fm. level cross-cut, the ground being both hard and wet makes progress towards this most interesting point rather slow, but we regard the finding of a rich course of ore as a certainty. In No. 2 sump the lode has improved since our last report, and without doubt it is steadily improving in depth in the present bottom; the portion of the lode being proved in sinking is 7 ft. wide, and is well charged with rich copper from one side to the other. It has seldom been our lot to see such a fine lode, and a rich one too, at this depth (less than 30 fms.), and when the levels are fairly opened out along its course large returns of ore must follow. In the 20 fm. level driving south of No. 1 sump the lode has become smaller, and is not at present producing copper to value; the change is evidently only temporary, as to-day a cavity has shown itself from which a small stream of water exudes, and this we look upon as a favourable indication. We have a large accumulation of rich orestuff on the surface awaiting treatment, the output already being far in excess of the means we have for dressing; this department is being extended, and we shall shortly be in a position to deal with much larger quantities than heretofore. All other work progressing favourably.

OLD GUNNISLAKE.—Wm. Skewis, A. F. Seccombe, Oct. 6: We are pleased that good progress is still being made in driving the level. We intended to have cut into the lode in time for this report, but the end passing through several small cross-courses in the last few fathoms we thought it better to drive a little further before doing so. The character of the granite is decidedly improved for the production of copper.

OKEL TOR.—W. Bulford, John Rodda, Oct. 12: All points in the mine without change. The eastern part looking exceedingly well for tin and arsenic, already opened up, and waiting for tin plant, which will now soon be ready.

OKEL TOR.—H. Bulford, Oct. 13: We are making new progress in the new shaft east, and are already 17 fms. deep, and going down upon the underlay with our north lode. We have this month constructed a large pond, to hold 30,000 cubic feet of water, so as to supply the tin works with an ample supply of water, and our boilers with fresh water. We have purchased a Tangye pump to raise the water to the height required. The completion of the tin plant is being pushed on with unflagging energy. In view of the difficulty we experienced in getting men, and in order to obviate the chance of any further delay in its erection, I determined to suspend our make of arsenic for this month, and to turn all hands to the tin plant, the construction of the pond, the excavation for the Tangye pump, &c.

PANT-Y-MWYN.—Enoch Parry, Oct. 13: We have just passed through another strong cross joint in driving the 22 west towards Griffiths's. The lode is wide, and very kindly in character, but without lead ore to value. We have, however, the right sort of ground, and may drive into rich ore any day. No change elsewhere in the mine.

PANDORA.—H. Nottingham, Oct. 13: Engine-Shaft: The lode is showing better lead on the footwall side, and also more blende with the hanging-wall. We are still cutting the shaft 10 ft. wide, so that our progress in sinking is very slow. The lode in the 45 end driving south is producing from 25 to 30 cwts. of lead and same of blende per fathom; ground hard and wet. The stope over this level is worth 1½ ton of lead and 1 ton of blende per fathom. The stope over this level, north of shaft, is worth 15 cwts. of lead and 1 ton of blende per fathom. No. 1 winze in the 33, south of shaft, the lode has improved to 1½ ton of lead and 1 ton of blende per fathom, but the water has increased very much, so that we are obliged to keep nine men here now instead of six. Two stopes working over level south of this are worth together 1½ ton of lead and 2 tons of blende per fathom. There is no material change in the tribute pitches.—Surface: We have not been able to make our usual progress since the water has become scarce for winding and dressing, but the weather has become unsettled and showery, and I hope to resume pumping with the wheel by the end of this week. The carpenters and smith are busily engaged this week in fitting the brasses to the travelling bobs that carry the flat-rods from the wheel, and other repairs, which can only be done whilst the rods are idle. We shall finish by the end of the week, and have them in good repair.

PARYS COPPER CORPORATION.—T. Mitchell, Oct. 12: The 60 cross cut south continues to go forward in the same kind of ground as we have had for some time, consisting of chert, intermixed with sulphur. The No. 1, driving west of cross-cut, is yielding about 1 ton of copper ore per fathom, with more patches of sulphur appearing in the forebreast. The No. 2, west of cross-cut will yield 2½ tons of copper ore per fathom, and from the favourable appearance of the lode we think there will be a further improvement soon. The 90 east of cross-course, on the Carreg-y-doll lode, is still producing a little ore about 1 ton in a fathom. There is more lode standing towards the north side, and we purpose cutting into it after we get the end a little further on. The pitches are looking much as usual. Our sampling to-morrow will be upon 200 tons of copper ore and 60 tons of precipitate.

PELYN WOOD.—T. H. Bennett, Oct. 12: In last week's report "one" should have read "our" yields of grey ore are of excellent quality, and in which will be found a good percentage of silver. I have now very great pleasure in stating that opinion has been fully verified by a sample from the lode having been forwarded to Messrs. Johnson, Matthey, and Co., who have assayed it, with the following result:—Copper, 14·1 per cent,; silver, 26·150 ozs. per ton of ore, which is equal to from 10*l.* to 12*l.* per ton. The water in the end increases, and is highly mineralised. These are features we may safely regard with the greatest possible interest, as their importance in the future of this drivage leading up to the junction of the east and west lodes cannot be over-estimated. It is only within the last six weeks that we have broken grey ore; hitherto it had been occasional stones of malleable, but now we not only find excellent stones in the leading part of the lode, but to-day I have found it disseminated in white iron, and gossan constituting the other part of the lode. I think this begins to speak louder than any statement of mine, and invites the shareholders to be sanguine in their expectations. On Saturday last I set six men to drive on this lode, at 2*l.* 15s. per fathom, or 10 fms. the month. This drivage is all the work being done at present except clearing debris to enlarge the space for containing the output of orestuff. Every effort will be made to push forward the drivage with all dispatch.

PENHALLS.—S. Bennetts, R. Harris, Oct. 8; The 80 cross-cut north is without change. The 70 east end is worth 5*l.* per fm. The 60 east is at present unproductive. The 60 west on south lode is poor. The 55 east is worth 10*l.* per fathom. The 50 west is producing low quality tinstuff, but not of much value. The 45 west is worth 6*l.* per fathom, and the rise above this level is worth 5*l.* to 6*l.* per fathom. The 42 west is poor, and the 80, west from Blue Hills boundary, is worth 7*l.* per fathom. The timbering and securing of the 60 north is being proceeded with. Elsewhere there is no change to notice.

PENHALE AND BARTON—James Evens, Oct. 12: The 20 east is now driven 17 fms., and I am daily expecting to cut the Barton lode at this point. The stopes in the back of this level continue producing rich tinstone, as also do those in the 30. The water is going down rapidly in Barton. We have fixed shaft tackle on Albert shaft, and shall commence drawing here by whim next week. The engine, pitwork, and stamps are all working well. We are fitting more buddles on the dressing-floors, so as to facilitate the dressing. Various hindrances have operated against our getting a parcel of tin into the market by Saturday, but it is in forward progress. The mine has now been drained nearly three week, and I fully see my way to the realisition of my expectations. In my first report I stated that within two months from the completion of the draining there would be a parcel of tin in readiness for market, and I am quite of opinion that the quantity will be double what was looked for. The Chairman has paid us a visit to-day, and I have carefully gone over the entire workings with him, and explained our course of operations.

PENNANT.—Oct. 13: Now that our new arrangements on the dressing-floors are almost complete, we shall be able to get on better in this department, and be able to treat with greater dispatch large quantities of mineral that we expect to raise in the future. In the 40 east various joints are continually being crossed, letting out water and containing stones of lead and blende; you may, therefore, be sure we are looking forward with great expectation of meeting with large deposits of lead when we strike the east and west lode. The stope in the back of the 40, on the sulphate lode, yields well of this material, and I think there is more lead amongst the stuff than I have ever seen embedded in the barytes, and it will turn out very well when dressed.

PEN-YR-ORSEDD.—A. Bellis, R. Prince, Oct. 13.—There is a very favourable change taking place in the 150 cross-cut, and so strongly are we impressed with the idea that we have increased the hands, and are working with the fullest force both night and day. It is generally thought in the neighbourhood that we shall be successful in this important trial.

PHŒNIX UNITED.—J. Truscott, H. Harvey, J. Hosking, J. Rundle, Oct. 13: Setting Report: Old Sump Shaft: The 130 to drive in a southerly direction west of cross-course to intersect the lode; set to six men, at 10*l.* per fathom. The 120 to drive west, by six men, at 17*l.* per fathom, and worth per fathom 12*l.* To stope in the back of this level, by six men, at 4*l.* per fathom; worth per fathom 14*l.* The 120, set to drive east towards West's shaft, by four men, at 4*l.* per fathom. The 110 to drive in a southerly direction west of cross-course. by four men, at 4*l.* per fathom. To stope the back of this level, by four men, at 2s. 9d. per ton; worth per fathom 25*l.* The 100 is being driven west, by nine men, with boring machines; the lode is worth 10*l.* per fathom. To rise in the back of this level by the side of the lode, by six men, at 3*l.* 10s. per fathom. We expect to communicate with the 80 in the course of a few days. No. 1 stope in the back of the 100, by six men, at 5*l.* per fathom; worth 15*l.* per fathom. No. 2 ditto, by six men, at 3*l.* 15s. per fathom; worth 15*l.* per fathom. To drive west at this level on the north part of the lode, by four men, at 3*l.* 10s. per fathom; this end is in granite. West's shaft to sink below the 100, by four men, at 9*l.* per fathom. The 80 to drive west, by four men, at 12*l.* per fathom; worth per fathom 12*l.* No. 1 stope in the back of this level, by four men, at 4*l.* 10s. per fathom; worth per fathom 10*l.* No. 2 stope in the back of this level, by four men, at 3*l.* per fm., worth per fathom 20*l.* No. 3 stope in the back of this level, by six men, at 3*l.* 15s. per fathom; worth per fathom 14*l.* To drive west at this level on the north part of the lode, by two men, at 10*l.* per fathom; lode unproductive. The 60 to drive west, by four men, at 3*l.* 15s. per fathom; lode worth 20*l.* per fathom. To stope the back of this level, by four men, at 3*l.* 15s. per fathom; worth 10*l.* per fm. The 50 to drive in a southerly direction west of the cross-course, by four men, at 5*l.* per fathom. In this end we have just intersected a lode 8 ft. wide, and worth 15*l.* per fathom, but we are of opinion that the main lode is still before us, hence we are driving in this direction to ascertain. To stope the back of the 40, east of West's shaft, by six men, at 3*l.* 15s. per fathom; lode worth 10*l.* per fathom. The 30 to drive west of Old Sump shaft, by four men, at 7*l.* 10s. per fathom; worth per fathom 10*l.* No. 1 stope in the back of this level, by six men, at 3*l.* per fathom; worth 25*l.* per fathom. No. 2 stope in the back of this level, by four men, at 4*l.* per fathom; worth per fathom 20*l.* No. 3 stope in the back of this level, by six men, at 3*l.* 15s. per fathom; worth per fathom 20*l.* To stope the back of the 20, west of Old Sump shaft, by six men, at 4*l.* 10s. per faihom; worth per fathom 25*l.*—Western Mine: New Engine Shaft: The 112 to drive east, by two men, at 2*l.* 15s. per fathom; yielding a little tin, but not sufficient to value. The 112 to drive west, by four men, at 13*l.* per fathom; lode worth 5*l.* fathom. The 50 to drive west, by four men, at 13*l.* per fathom; worth per fm. 5*l.* To stope the back of this level, by six men, at 3*l.* 10s. per fathom; lode 15 ft. wide, and worth 16*l.* per fathom. The 40 to drive west, by four men, at 19*l.* per fathom; worth per fathom 10*l.* No. 1 stope in the back of this level, by six men, at 5*l.* per fathom; worth per cubic fathom 12*l.* No. 2 stope in the back of this level, by six men, at 5*l.* per fathom; lode 8 ft. wide, and worth 25. per fathom. To rise in the back of this level, by four men, at 14*l.* per fathom; worth per fathom 5*l.* The 20 to drive west, by two men, at 12*l.* 10s. per fathom; lode unproductive. The 60 to drive east of Stow's shaft, by two men, at 14*l.* per fm.; worth 5*l.* per fathom. We also set 11 tribute pitches, at tributes varying from 5s. to 13s. 4d. in 1*l.* for tin and copper. Since the general meeting we are pleased to say we have intersected a promising lode in the 50; worth as stated above 15*l.* per fathom, but we believe the main part of the lode has yet to be intersected at this point. On the whole we consider our prospects are of a very encouraging character.

PIONEER.—The mine captain reports, Oct. 10: Silver-Lead Mines, Holywell.—Bessie's Shaft: I have only to reiterate the statements made in last week's report. The lode continues to yield splendid rocks of galena, is as rich as previously reported, and is fully equal to the high value placed on it.—Blackwell Shaft: The lode here is 4 ft. wide, producing occasional lumps of ore. We continue driving both east and west to intercept important north and south lodes crossing on either side, and may strike into a large body of ore any day. As before stated the nature of the ground is everything that would be desired for yielding ore in large quantities.—New Shaft: In my last report I stated the men were getting some nice lumps of ore. We have now passed through the ore ground, and I have thought it best to go on sinking rather than strike out into the ore ground at present. Very fair progress is being made with the sinking, and we are pushing on the work with all speed.—Engine-Shaft: We are busy here clearing the 60 yard level to the shaft, and hope to complete it by the end of this week. We shall then at once put four men to rise in the roof at the point referred to in the last report, where I am confident that the results will justify the expense. We have also six men driving east in the 60 towards the Caleb Bell lode, and six men clearing out the 50 on the north and south cross-lode preparing room to enable tributers to put on getting ore. One place is already cleared and shows some lead. We shall start four men to work on it on tribute at once.—Hedge shaft: We have put four men to clear out this shaft. They have already opened 5 yards, and it is a splendfd square shaft. I have a very high opinion of this place, and if it proves as good as reported it will greatly enhance the value of the company's property. When we have opened to a depth of 35 to 40 yards we should put out two short cross-cuts to intersect several important pipes and strings. We shall also meet the north and south lodes discovered in the swallow in the engine-shaft, and as there is a great extent of line or virgin ground in this direction we may look forward with certainty to these strings and lodes being richly productive. The samplers have been here to-day, and sampled 20 tons for the ticketing at Holywell on Thursday next.—Copper and Lead Mine, Harlech: The copper lode in the fore-breast has become disturbed by a string of spar coming in on the footwall, but the ground is sotter and easier for driving. The driving can be let this month at 3*l.* 15s. per yard.

— Oct. 13.—Telegram: Lead sold, 18 tons at 10*l.* per ton, 2 tons at 6*l.* per ton. Particulars per post to-night.

POLROSE.—W. Bennetts, Oct. 12: The lode in the 100 east is 3 ft. wide, producing saving work for tin. In the 100 west the lode is 2 ft. wide, composed of flookan, quartz, capel, and mundic. We are getting on well with the rise above the 100 for the diagonal shaft. There is no change in the 90 west, where the lode continues about 2 ft. wide. In the 90 cross-cut south we still have a quantity of water to contend with, which makes it rather troublesome for driving. We have taken down the lode in the 90, east of north cross-cut, the lode keeps very strong and regular, composed of copper ore and blende, with a little tin. No lode has been taken down west of the cross-cut this week. We have cleared out the old 70 cross-cut for 13 fms. beyond the underlay shaft, and must now be not far from the end of the cross-cut. There is nothing new in the western adit.

PRINCE OF WALES.—S. Roberts, G. Rowe, Oct. 12: The shaftmen and others are making fair progress in driving the cross-cut and cutting plat in the 102. In the 90 end east there is no change since last week. In the 90 end west the men are driving by the side of the lode, consequently we have no material change to report. It has a kindly appearance. In the stope from No. 1 rise, in back of this level east, the lode is worth 8*l.* per fm. for tin and a little copper ore. The lode in No. 3 rise maintains its size, and is producing tinstone and copper ore, but is rather spare for taking down. The tribute pitch in back of this level west is producing good copper ore.

RED ROCK.—J. Kitto and Son, Oct. 3: We have commenced the new shaft, and are sinking it below the surface with a full set of men. We are also cutting out the side of the 10, and we shall soon commence rising from this point toward the said shaft so as to effect a communication between these points as quickly as possible, and as the rock is not very hard we hope to make good progress in accomplishing this work. The object of this shaft is to open up and assist the development of the eastern part of the mine on the main lode, which yielded good ore at the 10, and has considerably increased in value from there to

he 23, which is the deepest level in this section of the mine, and where we have discovered a course of profitable ground (*i.e.*, of a paying character) for about 30 fms. in length, and in the present forebreast, which is still being driven, the lode yields good lead and blende ores, and looks promising for an early improvement. The stopes above the 23 maintain their value and yield of ore. The other underground bargains are without any material change. We have delivered the parcel of ore sold to Messrs. Weston and Son, and dressing operations are going on as usual.

ROMAN GRAVELS.—A. Waters and Son, Oct. 13: There is no change in the cross-cut at the 125 south of new shaft. The lode in the 125 north is 7 to 8 ft. wide, producing good stones of lead ore. The lode in the 110 south is 6 to 7 ft. wide, worth 1 ton of lead ore per fathom. The 110 south, east on caunter, shows a promising lode, producing stones of lead ore and blende. The 95 south is in a lode 2 ft. wide, worth 1½ to 2 tons per fathom. The 80, south on hanging-wall part, is worth 1 ton per fathom, and improving. We are expecting a good lode here shortly; the footwall part is worth ¾ ton per fathom. The lode in the 65 south is 6 ft. wide, and worth quite 15 tons per fathom. The winze in this level, about 14 fms. behind said end, is worth 6 tons per fathom; at a depth of 5 fms. 2 ft. the lode is 2½ ft. wide. The 50 south is worth 1½ ton per fathom; lode 5 ft. wide. The stopes throughout the mine are yielding the usual quantities of lead ore.

RUSSELL UNITED.—J. Gifford, J. Bray, Oct. 14: We are pushing on the work from the wheel to Stephen's shaft with all possible speed, and hope to complete and set it to work some time in the first week in November. In the cross-cut north in the bottom level, east of Matthew's shaft, the ground is more favourable for progress, and letting out much water. In the bottom level, east on the course of the lode, the lode is 2 ft. wide, but poor. In the 55 east we have met with another cross-course which is letting out little water, and yielding good stones of copper ore. This leads us to believe that we are near the main lode.

SOUTH CARBIS.—W. Tregay, G. Johns, Oct. 13: The lode in the 15 east of shaft is worth 15*l.* per fathom for tin. The lode in the 15 west of shaft is worth 15*l.* per fathom for tin. This depth is from surface, and all in virgin ground.

SOUTH DARREN.—Henry James, Oct. 13: In cutting into the lode in the 120 east this week we find it has improved for lead ore, now worth 1¾ ton per fathom. Judging from the change of rock in the 120, driving west, I expect good results soon. The lode in the 110 east is very wide; the part we are carrying with the end is producing good copper ore with a little lead. We cannot give the value of the full width of the lode, as we have not cut through it for some time; by so doing we should be impeding progress in driving. I am pleased to report that we have a strong and healthy lode in the 110 west, worth 1¾ ton of lead ore per fm., with every appearance of its holding good. Three stopes in back of the 110 west are worth for lead ore on average 1½ ton per fm. A stope in back of the 110 east is worth 12 cwts. of lead ore per fathom. Surface operations are being pushed on vigorously, and all the machinery is in good order and working well. The 45 tons of silver-lead ore sold to Messrs. Goodhart and Co., on the 7th inst., realised 644*l.* 12s. 6d.

SOUTH DEVON UNITED.—Wm. Hooper, Oct. 13: Setting Report: The 110, east of Brook's engine-shaft, has been driven during the past month 1 fm. 2 ft. 9 in.; set to six men, at 9*l.* 10s. per fathom; the lode is 4 ft. wide, with a value of 20*l.* per fathom. I am pleased to say this end continues to lay open good ground for stoping, and with every prospect of a continuance. This end has already been driven through a good lode for many fathoms in length. The prospects here are most cheering, from the fact of the 100 over this point, and for many fathoms in length was driven through a valuable lode. In places it was proved to be from 10 to 12 ft. wide, and valued by several men of great experince to be worth from 100*l.* to 150*l.* per fathom; therefore I see no reason why, as the end is being extended east that similar discoveries should not be made. No. 1 stopef in the back of this level, is set to four men, at 2*l.* 15s. per fathom; the lode is 3 ft. wide, with a value of 7*l.* per fathom. No. 2 ditto is set to four men, at 3*l.* 5s. per fathom; the lode is 3 ft. wide, with a value of 7*l.* per fathom. No. 3 ditto set to four men, at 4*l.* per fathom; the lode is 3 ft. wide, with a value of 10*l.* per fathom. No. 4 ditto is set to four men, at 3*l.* 10s. per fathom; the lode is 3 ft, wide, with a value of 10*l.* per fathom. The 100, east of Brook's engine-shaft, has been driven during the past month 1 fm. 5 ft. 2 in.; set to four men, at 7*l.* per fathom. The men are now engaged driving on the south part of the lode, where for the part carrying, 5 ft., the lode is of a very promising nature, composed of capel, quartz, mundic, and stones of copper ore. The stope in the back of this level is set to four men, at 4*l.* 5s. per fathom; the lode is 4 ft. wide, with a value of 6*l.* per fathom. The 90, east of Brook engine-shaft, has been driven during the past month 1 fm. 1 ft.; set to two men, at 9*l.* 10s. per fathom. I am pleased to say I have not seen the end present such a promising appearance for some time past; the lode is fully 5 ft. wide, producing good stones of copper ore. The stope in the back of this level is set to four men, at 2*l.* 15s. per fathom; the lode is 3 ft. wide, with a value of 6*l.* per fathom. The 80, east of Brook engine-shaft, has been driven during the past month 1 fm. 0 ft. 2 in.; set to two men, at 11*l.* per fathom. There is no particular change in the end, the part carrying, 5 ft., is a very strong looking lode, and cannot, in my opinion, fail in producing large quantities of copper ore. No. 1 stope, in the back of this level, is set to four men, at 3*l.* 5s. per fathom; the lode is 4 ft. wide, with a value of 10*l.* per fathom. No. 2 ditto is set to eight men, at 5*l.* per fathom; the lode is 5 ft. wide, with a value of 12*l.* per fathom. The adit level, driving weft of old sump shaft, is set to two men, at 3*l.* per fm.; the lode is 3 ft. wide, composed chiefly of gossan, quartz, and spots of copper ore. Martin's shaft is now down 21 fms. 4 ft., and in regular course of sinking by nine men and three labourers at 18*l.* per fathom. Our hauling and dressing machinery is working satisfactorily, the jiggers are being constantly kept going, and are producing very good quality copper ore.

SOUTH PENSTRUTHAL.—S. Davey, Oct. 13: The various points of operation are being vigorously pushed on, and good progress made in forking the water and cutting down the shaft. We hope to reach the bottom of the engine-shaft in another fortnight.

SOUTH TOLCARNE.—Thomas Angove, Samuel Arthur, Oct. 12: The shaft sinking below the 60 is down 5 fms., lode 5 ft. wide, and worth 10*l.* per fathom. The 60 end west of this shaft, the lode is 6 ft. wide, and worth 10*l.* per fathom; it has not altered in size or value for the last 10 fms. We have no change to report in the 60 cross-cut north, The 50 end east, lode 4 ft. wide, improved in appearance and value since last reported. The rise in the back of the 30 is worth 4*l.* per fathom. We have no change to report in our stopes. We have contracted for the erection on this mine of a 26 in. winding-engine, to be completed forthwith. We are also in treaty for the erection of a 30 in. engine and stamps.

SOUTH WHEAL CREBOR.—J. Goldsworthy, Oct. 13: There is na marked change in the underground work to notice since last reported on. We have engaged a full staff of men to clear foundation for engine, etc. Also preparing for the reception of larger pitwork, which we expect to be delivered in the early part of next week. The engine we also expect the early part of next week. No time will be lost in completing the work in order to get the water out of the shaft, and to force the cross-cut in the 45 fathom level to the lode which is evidently near.

TAMAR (Silver-Lead and Fluor-Spar).—R. Goldsworthy, Oct. 13: Setting Report: To drive the 57 south, by six men, at 8*l.* per fathom; the slide referred to in my former report has shifted the lode east; we have cut into it about 2 ft., and as far as seen it has a very promising appearance, being spotted with lead throughout. The 27 cross-cut is suspended for the present. These men are now clearing and securing the shallower adit, which we purpose to drive with all speed to intersect the new shaft, a distance of 12 fms; this communicated, it will take off the surface water, and we hope enable us to continue the sinking of the shaft without any pumping machinery. To drive the 27 south, by four men, at 9*l.* per fathom; lode 4 ft. 6 in. wide, composed of congenial capel, friable spar, spathose iron, and rich silver-lead. A box of the ore we broke from the end has been forwarded to the office, and we consider the prospects of the mine never looked more cheering than the present.

TANKERVILLE GREAT CONSOLS.—Arthur Waters and Son, Oct. 13: The 220 west on No. 1 north lode, by six men, at 13*l.* per fathom; lode 3 ft. wide, worth about 1¼ ton per fathom. The same level east, by six men, at 13*l.* per fathom; lode 6 ft. wide, worth ¾ ton per fathom. The two stopes in back of this level west, one, by four men, at 5*l.* 10s. per fathom; the other, by four men, at 6*l.* per fathom, are together worth 2½ tons per fathom. The stope in back of same level east, by four men, at 6*l.* per fathom, is worth 1¼ ton per fathom. The two stopes in back of the 220 on Tankerville lode, one east, the other west of Watson's shaft, each by four men, at 5*l.* 10s. per fathom, are together worth 2 tons per fathom. Cross-cut going north at 206, by four men, at 8*l.* 10s. per fathom. Stope in back of 206 west, by four men, at 5*l.* per fathom, worth ¾ ton per fathom. Rise in back of 206 west of Robert's, by four men, at 9*l.* 10s. per fathom, worth 1½ ton per fathom. The 206 east on No. 1 north lode, by four men, at 8*l.* 10s. per fathom, worth ½ ton per fathom. The 192 east on same lode, by two men, at 6*l.* per fathom, worth ½ ton per fathom. The 180 west on old lode, by four men, at 9*l.* per fathom, producing stones of lead ore, but not to value. Stope in back of the 106 east on Tankerville lode, by four men, at 6*l.* per fathom, worth ¾ ton per fathom. Stope in back of 74 west on No. 2 north lode, by two men, at 5*l.* 10s. per fathom, worth 12 cwts. per fathom. No 2 stope in back of No. 2 north lode, by four men, at 5*l.* 5s. per fathom, worth 1 ton per fathom. Stope in back of 62 east, by four men, at 5*l.* 10s. per fathom, worth 1 ton per fathom. The 35 west of old lode, by two men, at 6*l.* per fathom, worth ½ ton per fathom. The new shaft on Pump Sump, by nine men, at 8*l.* per fathom.—Tribute: Pitch in back of 142 west, by two men, at 5*l.* 15s. per ton. Pitch in bottom of 92 east, by four men, at 3*l.* 10s. per ton. No. 1 pitch in bottom of 62 east, by two men, at 6*l.* per ton. No 2 pitch in bottom of 62 east, by two men, at 6*l.* per ton.—Pennerley: The 130 east on Big Ore lode, by six men, at 15*l.* per fathom; lode 3 ft. wide, producing good stores of lead ore. The 120 west on Warm Water lode, by four men, at 9*l.* 10s. per fathom; lode at present not to value. The 120 east on Big Ore lode, by four men, at 9*l.* 10s. per fathom; lode not to value. The 80 east, by four men, at 9*l.* 10s. per fathom; lode 1½ ft. wide, worth 1½ to 2 tons per fathom. Stope in bottom of 80 west on Warm Water lode, by eight men, at 5*l.* per fathom; lode 3 ft. wide, worth 1½ ton per fathom. The 70 on Big Ore lode, by four men, at 7*l.* per fathom, worth 12 cwts. per fathom. Stope in back of 80 west on Warm Water lode, by two men, at 4*l.* per fathom; lode 2 ft. wide, worth ¾ ton per fathom. No 2 stope in back of 80 west of same lode, by four men, at 4*l.* per ton; lode 2 ft. wide, worth 1 ton per fathom. No. 3 stope in back of 80 east, by two men, at 5*l.* per fathom; lode 1½ ft. wide, worth 30 cwts. per fathom. Stope in back of the 70 east, by two men, at 4*l.* per fathom; lode 2 ft. wide, worth ½ ton per fathom. The 70 east on Warm Water lode, by two men, at 5*l.* per fathom; lode at present not to value. Tribute pitch in bottom of 40 west on Big Ore, by four men, at 5*l.* per ton. Pitch in bottom of 40 west on same lode, by two men, at 6*l.* per ton.

Bog Mine: The adit level east of Bunting's shaft on middle lode, by two men, at 6*l.* 5s. per fathom; lode at present not to value. The cross-cut at the 70, towards north lode, by two men, at 4*l.* 10s. per fathom.—Tribute: No. 1 pitch in back of the 80 east, by two men, at 5*l.* per ton of lead ore and 25s. per ton of blende. No. 1 pitch in back of ditto east, by two men, at 5*l.* per ton of lead ore and 25s. per ton of blende. Pitch in back of the 70 west, by two men, at 5*l.* per ton of lead ore and 25s. per ton of blende. Pitch in back of this level on White Stone lode, by two men, at 5*l.* per ton of lead ore and 25s. per ton of blende. Pitch in bottom of ditto on south lode, by two men, at 5*l.* ton of lead ore and 25s. per ton of blende. Pitch in bottom of the 60 on main lode, by two men, at 3*l.* per ton of lead ore at 25s. per ton of blende. Pitch in bottom of ditto east on south lode by two men, at 5*l.* ton and 25s. per ton of blende. Pitch in back of the 50 on main lode, by two men, at 5*l.* per ton of lead ore and 25s. per ton of blende. Pitch in bottom of the 32 east of Bunting's shaft, on middle lode, by two men, at 5*l.* per ton of lead ore and 25s. per ton of blende. Pitch in the adit level on north lode, by two men, at 5*l.* per ton of lead ore and 25s. per ton of blende. The mine is drained to the 100 fm. level, and we are preparing to fix bearers, &c., at this level.

TANYRALLT.—C. Williams, Oct. 13: Since my last communication to the Journal we have sold two parcels of lead ore (29 tons) to Messrs. Nevill Druce, and Co., Llanelly, at an advanced price of 16s. per ton, and we have another batch now in the market for sale, so you will observe that our mine is opening out very satisfactorily in depth. The 32 west has gone through a continuous course of ore for 20 fathoms in length, and the end still in a fine lode over 5 ft. wide, and worth 20*l.* per fathom. The 32 south is in a strong powerful vein, producing fine ribs of solid lead, and as the end is advancing under rich ore ground, which has been taken away in the levels above, we may fairly calculate upon a speedy improvement at th s point.

TAVISTOCK GREAT CONSOLS.—H. Treganowan, Oct. 12: We have now completed the rise; the distance from the back of Anderton level to the bottom of Rix Hill level is 6 fms. 4 ft. I find the main part of the lode to be standing to the north. I have no doubt, as far as I can see, that the lode is from 12 ft. to 14 ft. wide; as soon as the men have cleared the stuff I shall set them to cut in.

TAVISTOCK GREAT CONSOLS.—H. Treganowan, Oct. 12: We have made communication from winze to rise by borer hole. We have from 4 to 5 ft. of ground standing between the winze and rise; we shall get this taken down as quickly as possible, and when this is accomplished shall be better able to see the exact position of the lode.

TREBARTHA LEMARNE.—G. Gifford, Oct. 13: In the deep adit west we are driving by the side of the lode. About 8 ft. behind the present end the lode is cut through, where it is full 3 ft. wide, comprised of caple, quartz, arsenical mundic, and tin worth, for the latter, full 10*l.* per fathom, with every appearance of improving in going into the hill under the ancient workings.

TRESAVEAN.—Josiah James: We have now gone through the adit as far as Tretheilan shaft, which is the western part of our sett. There is a stream of water coming down from the shallow adit, which must be taken up, and will take us some little time in doing. The top of William's engine-shaft has gone so bad that a great deal of debris has gone in the shaft, which must be taken up, and the shaft made secure, as it is here that I expect to find a good lode of copper ore at the 166. We have completed the footway about the centre of the mine; this is also a great advantage to us, as we can now go east and west through the mine from this shaft. The men are still clearing and securing the adit shaft on Harvey's cross-cut; the ground about this shaft is very much decomposed, so that we are obliged to keep the timber close to the bottom. The loading is built in Harvey's engine-house, and the masons are now taking out the old wood lintels and replacing them with stone, which will take about a week; in the meantime we shall get out the foundation for the steam capstan, so that there may be no delay in putting the masons to work about the same when the engine-house is finished. I shall also put the men to repair old east shaft next week, which will take but a few days to do. The carpenters have put the wood on the boiler-house of steam-stamps, and I expect two stamps axles next week. We have found the lobby through which the boilers of the 90 engine were drained, and the men are busily engaged in clearing and securing it.

TREVINCE CONSOLS.—John Mayne, Oct. 13: Middle Lode: The lode is still increasing in size, and improving for copper as depth is attained; and, no doubt, in a few fathoms deeper we shall reach a large course of copper ore. Wheal Moor lode is not quite so productive as reported last week. This mine being parallel with some of the richest mines the county ever produced, I am of opinion with a little further development it will be a great prize.

VAN CONSOLS AND GLYN.—James Roach, Oct. 12: The 70, west of Murray's shaft, is more promising than usual, the matrices are improving, with strong cubes of lead and blende in the forebreast. We are very nearly under the eastern stope in the 60, therefore should be into lead in the course of three or four weeks from date. In the 60 west we have driven a cross-cut south from the end of the ground in the lode 9 fms.; this has been impregnated with lead throughout, but not in sufficient quantities to operate upon. To-day we resumed the drivage west on north part of lode. The winze sinking under the 60 perpendicular in the lode has latterly yielded very fine stones and a mixture of lead; the stuff all goes to the dressing-floors. The foot or north wall will soon be struck, where we expect improvement. Very good branches of lead have dipped into the lode standing south of the winze, which at this point is upward of 40 ft. in width. The 50, west of Gundry's, is yet in a mass of carbonate of lime, which is still studded with stones of rich blende; the latter is much in favour of our getting a course of lead when we shall have passed through the spar. No. 1 stope about 50 is almost exhausted in the eastern direction. We are now working west, where we have a great deal of ground containing solid branches of lead. There is no alteration in No. 2 stope. The same remark will apply to those in roof of the 60. Tributers still at work in roof of the 40, and earning good wages. All machinery in good order, and work of all description carried on energetically.

WALKHAM UNITED.—Wm. Phillips, Oct. 12: The rise in the back of the 20 east is being continued by the side of the lode. This point will very soon be communicated. When this is effected more extensive stoping can be done in the bottom of the adit level, and the stuff will be taken to plat advantageously. The adit level east is also being continued by the side of the lode. The lode looks very promising, and when next taken down I believe it will be found more productive and greatly improved. The stopes in the back and bottom of the adit level east are looking much as usual, and are producing good profitable work for the stamps. The burning-house fire is alight to-day to prepare the calciner, and some tinstuff will be got into it to-morrow.

WEST CARADON.—N. Richards, Oct. 13: All the points are yielding about the same quantity of copper ore as when reported on for the general meeting last week, consequently there is at present no change to notice.

WEST CREBOR.—J. Andrews, Oct. 12: The shaftmen are now engaged cutting ground for bearers and cistern for the plunger lift, which will be completed in two or three days, when we shall at once commence to drive east and west of shaft at the 30 fathom level.

WEST DEVON GREAT CONSOLS.—George Rowe, Oct. 12: Our engineers, carpenters, masons, and labourers are all busily engaged in the different works connected with the new buildings to receive the engine with all its appendages, balance and shaft bob, &c., at the same time taking down the engine and removing the boiler, which will be brought on the mine and erected with as little delay as possible.

WEST GODOLPHIN.—T. Hodge, F. Hodge, Oct. 13: Wilson's Lode: In the 80 south cross-cut we meet with occasional good stones of tin. The 80 east end produces stamping work. The 70 west is not clear of the cross-course. The 70 east is worth 8*l.* per fathom. The 50 west end is in a good looking lode, producing tin and copper in paying quantities. The 70 south-east on the caunter is looking very well; worth 9*l.* per fathom; driving at 3*l.* 5s. per fathom. No other changes. We calculate to start our new stamps in the latter part of the present month, when we hope to make satisfactory returns. The mine holds out good promise.

WEST HOLWAY.—R. Rowlands: New shaft sinking, the lode is from 5 to 6 ft. wide, composed of limestone and a mixture of lead ore, and looks hightly satisfactory for further improvement. In the 95 and 110 levels west there is no change since the meeting that calls for remark. No. 1 rise in the 80 level west continues as rich as ever. We are now anxiously looking forward to intersecting the Ram shaft lode, and expect it will be found both productive and profitable.

WEST KITTY.—W. Vivian, Oct. 13: The end at the 90 driving east is letting out much water, but I am hoping we shall soon get an improvement. The lode in the 80 driving east is very kindly in appearance, producing a little tin. The lode in the 72 driving east is worth 18*l.* per fathom. The lode in the 72 driving west is about 3 ft. wide, producing a little tin. The lode in the 60 driving east is worth 40*l.* per fathom. The lode in the 50 driving west of rise is worth 20*l.* per fathom.

WEST LISBURNE.—L. Glanville, Oct. 12; Shop Shaft: The 24 driving east will yield 6 cwts. of lead and blende ores per fathom, and is improving daily. The pumps from London shaft will be connected with the engine for pumping by the end of next week; and as soon as this part of the mine is clear of water we shall begin breaking ore, and sending same to surface. The stope from river is nigh completion.

WEST POLBREEN.—W. Vivian, Oct. 13: As is well known, we shall have nothing of importance to report until we intersect the West Kitty rich lode within our limits. We shall not be long reaching this point, but I cannot state the exact time, as much will depend upon the value of the ground, but we shall push on with all speed. I intend in future pending the cutting of this lode to report only every other week. The property is very well thought of in this locality.

WEST PATELEY BRIDGE.—D. Williams, Oct. 13: During the past week or two the 56 north-west has been rather nipped, but I am pleased to say the ground is now easier to work, and much better progress is being made, and the vein on the whole presents a more promising appearance. The north cross-cut is in from the 20 fm. level 9 fms., and the ground here is congenial for the production of lead ore.

WEST VOR.—S. Harris, Oct. 13: I have been underground this morning, and am pleased to say the lode in the adit level driving east is gradually improving in both appearance and productiveness. I broke some good tinstuff from the lode, but we are not carrying all of it, it being too large for the level; and we can get on faster by driving an ordinary size level, and I have every confidence in a continual improvement as we extend east towards old Wheal Vor.

WEST WHEAL TOLGUS.—John Gilbert, Oct. 14: Richard's Shaft: The lode in the 105, driving west of shaft, is 3 ft. wide, and yielding occasional stones of mundic and copper ore. The lode in the 95, driving west of shaft, is 3½ ft. wide, but divided by a horse of killas; both parts are producing a little copper ore, but not sufficient to value. The lode in the 85, driving west of shaft, is 2½ ft. wide, composed of spar, mundic, and stones of copper ore. The stope in the bottom of the 95, west of shaft, and No. 2 stope in the bottom of the 95, west of shaft, are set on tribute to 14 men, at an average price of 7s. 2d. in 1*l.*; and we calculate to raise from them next month about 40 tons of copper ore.—Taylor's Shaft: The stope in the back of the 85, west of shaft, is suspended, and the men put to drive the 85 west of Richard's shaft.

WHEAL BOYS.—W. T. White, Oct. 12: At the time of our last report we were fixing the ladders from the 40 to the 50, which we have completed, and also cleared the 50 (so far as we can go) of the stuff; this level is driven west of the engine-shaft about 15 fms., and, like all the upper levels, must have been productive, as the lode in many places is worked away. The copper lode is south of the engine-shaft at this level about 3 fms., and is of a most promising nature, producing some good stones of ore; we have put a pare of men to drive west on it. The engine-shaft is cleared to the 40, and we are now preparing to clear it from the 40 to the 50, which we shall do with all speed. The water is in fork to about 4 fms. below the 50, and hope soon to get to the 60, where we expect to meet with something good.

WHEAL COATES UNITED.—W. H. Martin, Oct. 12: Fair progress is made in driving the 80 south cross-cut. The grouud is very congenial for mineral, and little water is issuing through the ground. The prian joints will yield tin. The lode in the 70 west is much the same in character as for the last 3 or 4 fms. In No. 3 rise we fixed new ladders from the 70 to the 60, and began to rise in back of the 60, to communicate with the winze being sunk below the 50. The lode in the 50 east is a large strongly mineralised lode, containing a quantity of mundic, copper, and tin, intermixed throughout; it shows more mundic than we have seen before in this level.

WHEAL CREBOR.—George Rowe, Henry Phillips, Oct. 11: The new shaftmen have pretty nearly completed cutting trip-plats around the whim shaft below the 120, and will shortly be in a position to send down the sinking lift; and the pit and timber men engaged in bringing down and fixing the new line of iron main-rods from the surface to the 120 are all in a forward condition to connect the pumping machinery, and we calculate to be in a regular course of sinking the shaft in a few days. The lode in the 120 east is 6 ft. wide, producing mundic and copper to the value of 8*l.* per fathom. The lode in the 103 east is carried 6 ft. wide, producing capel and spar, spotted with mundic and copper ore. The ground in the 103 cross-cut north is of a good description for minerals and moderately easy for progress. The lode in the new rise in the back of the 103 is producing good stones of ore. The lode in the Nos. 1, 2, and 3 stopes in the back of the 103 is worth respectively 35*l.*, 38*l.*, and 45*l.* per fathom. The lode in the rise above the 96 is worth 10*l.* per fathom. All other points are without change.

WHEAL FORTUNE.—W. Knott, Oct. 12: The lode in the rise in the back of the 44, west of engine-shaft, on the cross-course, is 1 ft. wide, composed of branches of quartz and flookan, and small branches of carbonate of iron, but nothing to value at present. The lode in the end of the 40 fathom level, west of the north cross-cut, is 4 ft. wide, composed of capel and quartz, and carrying a leader of peach, prian, and iron 10 in. wide, interspersed with good quality copper, which we are saving to dress. At Bennett's shaft, on Wheal Brothers lode, in the end of the 30 fm. level west, the lode is 1 ft. wide, composed of flookan, prian, and iron, with a leader of carbonate of iron 2 in. wide, with occasional spots of silver lead. In the end of the 30 east the lode is 4 ft. wide, composed of flookan, prian, and quartz, with a leader of carbonate of iron 2 in. wide, saving work for silver. We have broken from this end and from the back of the level during the past week 12 bags of silver ore, assaying about 70 ozs. of silver per ton, and from the character of the lode and the congenial strata in which the same is embedded we are daily expecting an improvement.

WHEAL GEORGE.—C. Kneebone, Oct. 13: We have a change of a favourable character in the winze. A joint dipping east brings with it 1 ft. of blackstone, then a rib of limespar spotted with lead. Where this comes in contact with the leader part of the lode it produces galena of a rich character; this is in the west end of the winze, but the best lode still continues in the east end, where it undoubtedly follows the dip of the Roman lode. We are still free from water, and I have no doubt shall continue so for 5 or 6 fms. deeper. The trial pit on the east and west intermediate lode is down 8 yards, and we shall now cross north into the lode; the indications are highly favourable.

WHEAL GRENVILLE.—T. Hodge, Oct. 13: The lode in the winze below the 165 east end level is worth 20*l.* per fathom. The water is too powerful for manual labour; we are compelled to suspend it until the end below gets further in advance to drain it down. The winze is about 10 fms. before end. I see not the slightest change in the other bargains since my last. The mine is looking fairly well.

WHEAL JANE.—J. Reed, Oct. 12: The Great Flat Lode: The 60 cross-cut north, driving in the north part of this lode, continues to open up valuable ground, worth for tin 18*l.* per fathom. This lode in the stope west from the cross-cut, in the back of the 60, is worth for tin 15*l.* per fathom. This lode in the stope in the bottom of the 50 is worth for tin 14*l.* per fathom; there are now seven tribute pitches working upon this lode all looking well.—Ready Money Lode: This lode in the driving west from No. 1 cross-cut deep adit is 2½ ft. wide, worth for tin 6*l.* 10s. per fathom. This lode in the driving west from cross-cut shallow adit is 3 ft. wide, worth for tin 9*l.* per fathom. This lode in the stope east from No. 1 cross-cut is 4 ft. wide, worth for tin 8*l.* 10s. per fathom. This lode in the stope east from the rise shallow level is 4 ft. wide, worth for tin 9*l.* per fathom. In the cross-cut south from Gilbert's shaft, at the 16, we have discovered a lode, but as yet have not ascertained its size; the men have cut into it 3 ft., with no footwall; it contains 28 lbs. of tin to the ton.

YEOLAND CONSOLS.—Joel Manley, Oct. 11: We are making good progress in the deep adit level going west towards the old mine, and are laying open good paying tin ground. The rise in the back of this level is now up about 7 fms., and the south part of the lode where cut into yields rich tinstuff. I have not the least doubt of our opening up a good paying mine.

WHEAL LUSKEY.—G. Gifford, Oct. 13: In the deep adit level west of the cross-cut the lode is full 6 ft. wide, with two well-defined walls, 3 ft. of the south part being composed of capel, quartz, and gossan, containing spots of both grey and green carbonate of copper; the north part is composed of a mixture of soft granite, quartz, and gossan—a strong masterly lode, which, in my opinion, cannot fail to produce large quantity of rich copper ore, both in going into the hill and in depth.

WHEEL PEEVOR.—W. T. White, Thos. C. King, Oct. 12: All possible speed is being made in the working of the mine, and we anticipate sinking our engine-shaft to the 100, if not against our meeting to be held in six weeks' time, we shall in a very short time after. The improvement in the lode we have at the 90 is still opening up satisfactorily, and will, we think, go back north of the level we have driven. We consider it to be the main part of the lode at this level, and we are now driving east and west on it. We intend also to rise in the back through the 30; this will then open up a fine run of stoping ground. We also consider this a most important feature for the 100. The lode in the 80, west on middle lode, is opening up well, the lode being fully the size of the end, and producing good work for tin. Within the last two or three days we have cut the lode east of Nicholl's cross-course in the eastern part of the mine. We have not as yet cut into it but a short distance, the men being squaring up the ground in the cross-cut. It has the appearance of being a large lode, and we expect to be in a position to report in our next its size and value. We consider it a good point. We cannot speak of any other change in either of the other bargains. We are sorry to say last week we had a hinderance of five days in our drawing through the breaking of the main bob of the fire whim. We had a new one cast and is working well. This will make a little difference in our returns for this quarter, but the prospects of the mine of late have very much improved.

WHEAL PRUSSIA AND CARDREW UNITED.—James Pryor, October 12: Prussia: The men having sunk the skip shaft to the 15 under adit, we have put them to drive west by six men, at 8*l.* per fathom; lode producing a little tin, but not enough to value. Its appearances, however, indicate an early improvement. As soon as this end is extended a little distance we shall put the men to bring down the skip-road, cut a plat at this level, then again resume the sinking of the shaft. The 50, or deep adit level, to drive west, by four men, at 6*l.* 15s. for the month; lode worth about 7*l.* per fathom. A rise in the back of the 40 40 east, by four men, at 10*l.* per fathom; lode worth 9*l.* per fathom. When this rise is communicaed to the 30, and we expect to do so in a few days, a piece of ground will be laid open for stoping. A stope in the 30, by four men, at 4*l.* per fathom; lode worth 9*l.* per fathom. A stope in the bottom of the 30, by four men, at 4*l.* per fathom; lode worth 10*l.* per fathom. Having effected the communication at the 30 west with the level above we have again resumed the driving the 30 by two men, at 8*l.* per fathom; lode worth about 7*l.* per fathom. The 20 to drive west, and west of rise, by four men, at 6*l.* 18s. per fathom for 10 fms.; lode worth 10*l.* per fathom. To rise and stope in the back of the 30, by four men, at 3*l.* 15*l.* per fathom; lode worth 10*l.* per fathom. The 20 to drive east of rise by two men, at 7*l.* per fathom; lode worth about 7*l.* per fathom.—Cardrew: The water is now in fork to about 4 fms. under the 50. I may remark that we have no difficulty in forking the water, as our water-course is only about 4½ strokes per minute. The shaftmen are engaged cutting hitches for bearers and ground for cistern plat at the 50, as we must fix a standing lift at this level (our present drawing-lift being about 24 fms. long). As soon as this is done and the lift fixed we shall again resume the forking. We are also cutting down the engine-shaft, and have completed the same to about 6 fms. under the 30. The men are making very good progress in clearing the levels, &c., having cleared the 40, and are now engaged about the 50, but as far as seen the copper lodes are most extensively worked, thus showing they must have been very productive. At the 50 we find the tin lode is also most extensively worked on, especially in the western part of the mines. As soon as we can see our way clear to discharge the stuff we shall put the men to break tinstuff from this lode, when we shall be in a better position to speak of its value, but from samples taken I have no doubt but that it will not pay for prosecuting. The copper branch at the 30 is looking just the same. We intend drawing some of the ore next week, and get it ready for sampling. We have started the cross-cut north of the engine-shaft to cut the Prussia and other lodes to the north. This is a most important point, as it will not only prove the Prussia lode 20 fms. deeper than any point yet seen, but will also prove the ground between the two mines. To urge this cross-cut as fast as possible we have set the whole distance—about 28 fms.—to six men, at 7*l.* per fathom. In conclusion, we beg to say that we have still every reason to believe that these mines will prove very productive when laid open.

WATSON BROTHERS' MINING CIRCULAR.

WATSON BROTHERS,
MINEOWNERS, STOCK AND SHARE DEALERS &c.
1, ST MICHAEL'S ALLEY, CORNHILL, LONDON.

Wheal Crebor ore, 462 tons, assays—102 tons, 6¾ per cent.; 96 tons, 7; 93 tons, 7¼; 91 tons, 6⅝; and 80 tons, 6¾ per cent. We estimate this to produce about 1600*l.*

We were rather abused for our remarks on South Frances more than a year ago; the agents denied what we said, and shareholders, some of them, were indignant at it. The mine was then paying large dividends, and shares through them had been put up to a very high price. We then stated from information we had received, and upon which he could rely, that the mine was not in reality in a position to pay the dividends; that shafts and machinery were in a very bad state, and a large outlay would have to be made ere long to put the mine right. In the meantime the dividends kept up prices on the market, and enabled those in the secret to get out of their shares at high rates before the crash came. Since that time some thousands of pounds had been spent on the mine, and in the accounts of the meeting, held last week, which show a loss of 394*l.* 0s. 2d. on four months' working, the agents state upwards of 1000*l.* had been charged for new machinery, &c., and the engineer estimated that it would take 1100*l.* to 1200*l.* to put Marriot's engine in a proper state of repair. We always spoke well of the mine itself, but subsequent events have shown that our remarks upon its real position at the time we wrote were more than justified.

In a report of Camborne Vean meeting, Mr. Rule appears to have stated that he came to London to bring the mine out, and got the assistance of "Messrs. Watson, Gundry, and Seward, but these gentlemen wanted to bring out the mine as a limited company, which meant that the promoters would have pocketed 50,000*l.* and 50,000*l.* would be put to work the mine." Now, we have not the honour of being acquainted with Mr. Rule, and the above does not in any way apply to anyone connected either directly or indirectly with this firm. We mention this as several persons have called our attention to the paragraph. We may add that more than 30 years ago ourselves and friends worked Camborne Vean in connection with Stray Park, and

the meetings were held in this office. It is not likely that we should go into it again.

D'Eresby Mountain has sampled 30 tons of lead, and we hope the rise in lead will give us an improved price upon the last sale. The agents write that No. 6 lode is worth 3 tons per fathom, and if it continues for long it will open a splendid mine.

We had hoped to announce the mine referred to in our last, this week; but some of the preliminaries are incomplete. We hope to give all particulars next week. In the mean time several thousand shares have been applied for.

Parys Copper has sampled 200 tons of copper ores and 60 tons of copper precipitate.

Morfa Du has sampled 60 to 70 tons of copper ores. This has been obtained in working the bluestone, of which there are upwards of 500 tons in the mine, cost of which has been paid, and forming part of 1000 tons sold for monthly delivery.

The adit at East Blue Hills is 50 fathoms deep and levels driven in tin at the 30 and 40 in Blewbarrow lode. The adit end in this lode is worth 12*l.* per fathom, and a sale of tin will shortly take place. From the 30 fathoms level a winze is being sunk down to adit end and will open out a good lot of tin ground. The adit is also being continued to cut the rich Pink lode 50 fathoms deep.

Since the above remarks were written we have received a telegram from the purser of East Blue Hills informing us that he had obtained from the Duchy of Cornwall the promise of an extension of sett so as to take in the West Kitty lode. This is most important, as the adit can now be continued so as to intersect the West Kitty lode more than 50 fathoms deep.

The Mining Market: Prices of Metals, Ores, &c

METAL MARKET—LONDON, OCT. 14, 1881.

Iron.	£ s. d.	£ s. d.
Pig, GMB, f.o.b., Clyde...	2 12 0	(nom.)
„ Scotch, all No. 1 ...	2 13 0	—
Bars, Welsh, f.o.b. Wales	5 7 6	5 10 0
„ „ in London .	5 17 6	6 0 0
„ Stafford., „	7 0 0	7 5 0
„ in Tyne or Tees ...	5 12 6	5 17 6
„ Swedish, London...	9 10 0	9 15 0
Rails Welsh, at works ..	5 7 6	5 10 0
Sheets, Staff., in London	8 0 0	8 5 0
Plates, ship, in London .	7 10 0	7 15 0
Hoops, Staff., ...	7 10 0	8 0 0
Nail rods, Staff., in Lon.	6 10 0	7 0 0
Steel.		
English, spring	11 0 0	18 0 0
„ cast	30 0 0	45 0 0
Swedish, keg	15 0 0	—
„ fag. ham.	15 10 0	—
Lead.		
English, pig, common..	15 10 0	15 15 0
„ „ L.B.	15 15 0	16 0 0
„ „ W.B.	16 5 0	16 10 0
„ sheet and bar..	16 2 6	—
„ pipe	16 12 6	—
„ red	16 15 0	—
„ white	21 0 0	23 0 0
„ patent shot ...	18 2 6	—
Spanish	15 2 6	—
Nickel.		
Metal, per cwt.	15 0 0	16 0 0
Ore, 10 per cent. per ton.	20 0 0	25 0 0
Quicksilver.		
Flasks, 75 lbs., war.	7 0 0	—
Spelter.		
Silesian	16 12 6	16 15 0
English, Swansea	16 15 0	—
Sheet zinc	20 15 0	21 5 0

Tin.	£ s. d.	£ s. d
English, ingot, f.o.b...	103 0 0	—
„ bars „ ...	104 0 0	—
„ refined	105 0 0	—
Australian	97 0 0	97 5 0
Banca ....nom.	99 0 0	—
Straits	97 0 0	97 5 0
Copper.		
Tough cake and ingot.	67 0 0	68 0 0
Best selected	69 0 0	70 0 0
Sheets and sheathing.	76 0 0	77 0 0
Flat Bottoms	79 0 0	80 0 0
Wallaroo...........nom.	68 10 0	69 10 0
Burra, or P.C.C..........	68 0 0	68 10 0
Other brands	65 0 0	66 0 0
Chili bars, g.o.b.	62 15 0	63 0 0
Phosphor Bronze.		
Alloys I., II., III., and IV. ...	£120 0 0	
„ VI. and VII.	135 0 0	
„ XI., Spl. bearing metal	112 0 0	
Brass.		
Wire	6¾d.	—
Tubes	9¼	—
Sheets	9	—
Yel. met. sheath. & sheets	6⅜d.	6½
Tin-Plates.*	per box.	
Charcoal, 1st quality ...	1 2 0	1 4 0
„ 2nd quality ...	0 18 0	1 0 0
Coke, 1st quality	0 18 0	0 19 0
„ 2nd quality	0 16 0	0 17 0
Black...............per ton	15 10 0	—
Canada, Staff. or Gla. at Liverpool	12 0 0	—
Black Taggers, 450 of 14 × 10	30 0 0	—

* At the works, 1s. to 1s. 6d. per box less for ordinary; 10s. per ton less for Canada; IX 6s. per box more than IC quoted above, and add 6s. for each X. Terne-plates 2s. per box below tin-plates of similar brands.

REMARKS.—After showing firmness all round at the opening of the week, the markets have since in some cases given way slightly, and several of the previous buyers have displayed more disposition to sell than to buy, and where a slight fall has been made it may, perhaps, in the main recoil on the closing of speculative accounts, through operators securing their profits. This is not remarkable, for alleged disquietude in politics, the fear lest money should advance in value through a drain of gold, act against the tone of the market, and while these adverse features prevail many operators deem it more prudent to take their profits than to run any further risk of the market. This appears perhaps about the best policy to adopt, for notwithstanding there does not seem any material likelihood of any falling off in the trade, yet while fair returns can be obtained operators, at all events in the interests of the trade at large, cannot do better than secure them, for their sales temporarily at least depress prices and keep them low, which necessarily tends to still further augment regular trade, and thus produces a healthier state of affairs. Dear money is often occasioned by over trading, but not so at the present time, and if there has of late been any extra briskness in the regular demand for metals it has not arisen from over trading, but has been caused by a growing increase in the *bona fide* requirements of the trade, and instead of any likelihood of those wants being in any way reduced during the immediate future, there is every probability of their being maintained, the autumn season being one of the principal seasons for shipping, and besides there are cases where the total deliveries for the whole of this year do not compare well with those for the corresponding period of last year, signifying, as we have before shown, that there is still a deficiency to be made up.

Therefore, there seems every chance of continued activity in the legitimate trade, while it is worthy of note that, where any reaction has been made, it is not in the price of manufactured metals but, in a few instances, in the raw material, upon which speculation is centred, showing plainly that it is caused chiefly, if not entirely, by realisations. Another feature, also, which should not be overlooked is the fact that bear sales are, for the most part, of rare occurrence. The prospects of the trade are still too bright to admit of any large bear sales, and hence we see that, in spite of a few apparently detrimental circumstances which exist, there are, taken on the whole, far more bull than bear operators. Apparent bears there may be, but as the prospects of the trade are good, it is very unlikely that there are many operators who will venture to sell forward without covering to any large extent. While *bona fide* orders continue to flow in plentifully, and the various works keep well occupied, there is no reason to be discouraged with the actual business doing; for if profits upon the several transactions are small compared with former times, on account of the keen competition and reduced commissions, yet, if a good business can be carried through, these objections are, in great measure, compensated for, although in some instances prices are rather weaker. Yet in others advanced rates have been realised, and the demand generally may still be reckoned of a satisfactory character, and without particular change from what we reported it last week. Shipping business keeps very fair, while large orders are reported still to be given out for consumption.

COPPER.—Throughout the whole of the past week this market has remained very steady. There has been scarcely any alteration from day to day in the official quotations, and a fair amount of business has been carried through. The principal adverse feature which for so long passed has affected this market—the very heavy stock—is gradually, but at the same time effectually being done away with, so that we have seen that upon the publication of the last few statistics a sensible reduction has been made in the visible stocks. Upon this have prices been advanced, and as each rise is apparently sustained by a good *bona fide* demand there is little or no probability of any material fall being effected for some time to come, providing, of course, no unexpected adverse circumstance arises. The market is strong, and, therefore, can apparently stand against slight influences of a detrimental character, particularly as it is evident by the remarkable steadiness of the market that the business which has lately been done is not so much for speculative account, but more for legitimate purposes, which opinion is also confirmed by the very favourable deliveries which the last returns have shown to continue to be made in this metal. This market has long wanted some such support as is now given to it—of more limited supplies and increased deliveries, and it is most satisfactory in the interest of the trade at large to observe while these two favourable features prevail operators instead of being hasty to create an inflation are content to allow prices to slowly advance, because this will in all probability cause the rise to be of permanent duration. An inflation might serve the interests of a selected few, but to the trade at large prices could not do better than steadily improve as the stocks diminish. At the public Ticketing, held at Swansea last Tuesday, 1052 tons of copper ores were sold at an average of 11s. 5¾d. per unit, the average produce being 7⅝ per cent.

IRON.—This market is still strong, and a considerable business is being carried through, both in the raw and manufactured material. One of the most important and favourable features we have to record this week is the damping down of 15 furnaces in Scotland, so that there is now only one more furnace in blast than at the corresponding period of last year. The trade has had to wait for such a long time for the production to be reduced that it is satisfactory to find at last that several of the furnaces have been damped down, but at the same time the movement has not produced so beneficial an influence as it might otherwise have done, on account of the public stock continuing to display a vast increase. The shipments still keep very fair, so that it seems not unlikely but that a still further reduction in the supplies will have to be made. At all events be this as it may the market is now strong, and holders are mostly firm in their quotations. A few realisations in the early part of the week somewhat depressed the market, but during the last day or two there has been a gradual recovery in the tone, and prices have again taken an upward direction. At the quarterly meetings which have been held this week there has been no further rise declared in the price of manufactured, but the advances of the past few weeks have been confirmed, and it is thought not unlikely but that a further enhancement may be made in the course of a few weeks. This is considered probable on account of the various mills and works being still busily occupied with the orders now on their books, while many sellers are said to be holding off the market altogether, and refusing to take orders, being so particularly pressed for delivery with the contracts now in hand. The Glasgow warrant market has this week been rather changeable, and a fairly large business has been transacted. On Monday prices at the opening were strong, and the quotation advanced from 51s. 6d. to 52s. 4½d., closing, however, rather easier at 52s. 2d.

On Tuesday morning the market continued strong and transactions were reported from 52s. to 52s. 4½d., when a sharp reaction ensued, and a manifest anxiety was exhibited to sell, the price speedily falling away to 51s. 3d. Since which, however, there has been a steady gradual recovery, the official quotation on Wednesday being 51s. 6d., and yesterday 52s. 4d., the market closing to-day at 52s. nominal, there being no telegram from Glasgow on account of the boisterous weather. The foreign and coastwise shipments last week were 11,102 tons, against 10,955 tons for the corresponding week of last year, or an increase of 147 tons, and which now makes the total shipments for the whole of this year 452,953 tons, against 550,696 tons for the same time last year, and 425,770 tons for the similar period of 1879. The number of furnaces in blast now stand at 105, and the public stock has been increased to 596,053 tons, against 592,593 tons last week, or an increase of 3460 tons. The imports of Middlesborough pig-iron into Grangemouth last week were 9828 tons, against 5140 tons for the same week of last year, being an increase of 4688 tons. There was but little alteration reported in the state of the Middlesborough trade at the quarterly meeting last Tuesday. The prospects of the trade are considered satisfactory, while makers keep very firm in their quotations, refusing in some instances to accept orders unless enhanced rates be paid. Buyers, however, in many cases do not appear willing to pay dearer prices, especially as some few second-hand parcels are to be obtained at slightly better rates. Warrants are quoted at about 42s. for No. 3. Large shipments have lately been effected, those last week from Middlesborough being nearly 24,000 tons. There is said to be a better demand for all classes of manufactured, but more especially for ship-plates and angles, the former ruling at 6*l.* 12s. 6d. and the latter at 6*l.* 2s. 6d.; while common bars are quoted at 6*l.* per ton. Prior to the quarterly meeting at Wolverhampton last Wednesday, the market was reported in a very feverish state, there being so much uncertainty as to whether prices would be advanced or not. At the meeting the list houses did not make any advance, but sellers have kept very firm in their prices; while it is generally anticipated that early next month prices will be advanced. Shropshire pigs are quoted at 65s., and Staffordshire qualities 2s. 6d. to 5s. more. Marked bars ruled at 7*l.* 10s., and common bars at 20s. less. At the quarterly meeting at Birmingham yesterday, there was a large attendance of ironmasters and others from all parts of the country, but it was decided, as at Wolverhampton, not to further advance prices just at present; but in anticipation of a rise shortly being made, orders have flown in for large quantities of most descriptions. Cut nails are in fair demand, and prices are up 10s., other descriptions remaining at the previous advanced rates.

Upon the Sheffield market the demand for merchant iron is reported particularly brisk, and prices keep very firm; and makers are still well off for orders. The Welsh trade is said to display increased vitality, while the prospects are thought to be brighter than they have been for a very long time past. Recent advices from New York report the American market as stronger, and a better business is doing at the improved rates. The quotations for Gartsherrie and Coltness are without alteration; the former ruling at $25, and the latter at $26. Glengarnock has advanced 10s., and is now quoted at $25·40, while Eglinton is 6s. dearer, and rules at $23·50. Scrap is 4s. higher, the present price being $28·50; while old rails are offering at $27·50. The official quotation for Cleveland pigs is $18·50 to $19; and for hematites, $25.

TIN.—A very large business has again to be recorded in this metal, and transactions have continued to be carried through at variable rates, but at the same time prices are higher, the advanced rates in many instances being readily paid. The tone of the market unquestionally keeps good; and as there is little or no chance of forced sales being effected, for according to the last issued statistics the stock is light, and besides this it is distributed now more than of late, so that if any one seller shows much disposition to realise, there are plenty of buyers who are only too willing to relieve him of his stock. But setting apart speculative business, and treating with that done for consumption, it is worthy of note that the high prices now ruling do not seemingly in any way check *bona fide* trade, for deliveries are maintained upon a large scale, signifying that consumers for the most part cannot hold any very large stocks, and as it is evident they do not now buy more than sufficient to meet current requirements, there is every chance of deliveries continuing to be maintained for some time to come.

LEAD.—This market is steady, without change in price.

SPELTER steady, at, 16*l.* 12s. 6d., to 16*l.* 15s. for ordinaries.

STEEL.—Firm, and without change.

TIN-PLATES.—Only a moderate business is doing at rather better prices.

QUICKSILVER.—A very active market, at prices ranging from 6*l.* 10s. to 6*l.* 17s. 6d., chiefly from second hands, the importers of Spanish declining to sell large quantities. At the close they require 7*l.* The movement has its origin in a rumour of a combination at San Francisco, where the price has advanced to 40 cents.

GOLD AND SILVER.—Messrs. PIXLEY and ABELL (Oct. 13) write:—The demand for gold for export continued unchecked until yesterday, when a cessation of orders for America caused an influx to the Bank of about 298,000*l.*, composed chiefly of Russian and Dutch gold coin. The orders in the early part of the week were, however, sufficiently large to obsorb not only all the arrivals, but also 430,000*l.* in sovereigns, withdrawn from the Bank. The receipts since our last have been 60,630*l.* from Australia, and about 400,000*l.* from the Continent = 460,630*l.* The Tagus takes 10,000*l.* to River Plate, and the Clyde 120,000*l.* to Alexandria, and 30,000*l.* to Bombay.——SILVER has varied somewhat in price during the week, and at one time 52½d. was obtained; the market is now weaker, and the nearest quotation we can give to-day is 52 1/16d. per ounce. The arrivals comprise 55,200*l.* from New York and 7000*l.* from the Pacific = 62,000*l.* The Clyde has taken 10,000*l.* bars to Calcutta.

At Swansea Ticketing, on Tuesday, 1052 tons of ore of 7⅛ average produce, and containing 80 tons of fine copper, were sold for 4592*l.* 7s. 0d., being 4*l.* 7s. 4d. per ton of ore, 11s. 5¾d. per unit, or 57*l.* 8s. 1d. per ton of fine copper in the ore, and an average standard of 83*l.* 8s. 4d. for 9 per cent. produce. Subjoined are the particulars of the two last sales:—

Date.	Tons.	Standard.	Produce.	Per ton.	Per unit.	Ore copper
Sept. 13	1257 ...	£82 12 7 ...	7¾ ...	£4 7 8 ...	11s. 3½d...	£56 8
Oct. 11	1052 ...	83 8 4 ...	7⅝ ...	4 7 4 ...	11 5¾ ...	57 8

Compared with the last sale, the advance has been in the standard 15s. 9d., and in the price per ton of ore about 1s. The Betts Cove ore gave an average produce of 6 1-16, and realised per unit 11s. 8¾d.; Caveira, produce 6, per unit 10s. 3d.; Berehaven, produce 7⅜, per unit 11s. 5½d.; Virneberg, produce 9¾, per unit 11s. 10d. There will be no sale on Oct. 25.

The MINING SHARE MARKET, notwithstanding the improved position of the metal trade, has continued dull and inactive during the week, and the dealers have been chiefly occupied in the settlement of the fortnightly account. The mines most in favour have been East Pool, Carn Brea, Dolcoath, Wheal Basset, West Kitty, West Frances, East Blue Hills, New West Caradon, Prince of Wales, Carnarvon, Parys, and a few others.

TIN is firmer, but no further advance has taken place in the standards for ore. The market for shares has been weaker, and just in that position that when shares are offered for sale prices at once decline. This is brought about principally by over speculation for the "account," particularly in Cornwall. When settling days arrive shares which have been worked up by heavy purchases are either forced for sale or settled for by payment of difference, instead of being taken up for investment.

Blue Hills are quoted 2½ to 3. Carn Breas are weaker, at 29 to 30. Cook's Kitchen, 25 to 26; there is said to be a splendid course of tin in the bottom of the mine. Dolcoath, 87 to 89. East Pools have been in demand, and advanced to 45, leaving off 43 to 45. East Lovells are also better, at 2½ to 3. Killifreth 1⅜ to 1½; North Penstruthal, ⅞ to 1⅛; New Kitty, 2⅛ to 2⅜; Polrose, ½ to ¾; South Condurrow, 10 to 10½. South Crofty, 10 to 10½; there is a good lode here, in the 205 west. South Frances, 16½ to 17; at the meeting, held in Cornwall, the accounts showed a loss on four months' working of 394*l.* 0s. 2d., and a balance in favour of the adventurers of 361*l.* 10s. 5d. The tin sold (117 tons) realised 6667*l.* 6s. 7d. The costs have increased, the agents state, at least 1000*l.* by extra work and new machinery. West Frances advanced to 20, and leave off 18 to 19; the mine has been inspected, and the lode in the 154 fathom level valued at 45*l.* per fathom. Tincroft, 19¼ to 20½; West Kitty, 9 to 9½; this mine continues to look well. West Peevor, 13½ to 14; Wheal Agar, 15 to 15½; Wheal Basset, 5½ to 6; Wheal Grenville, 11 to 11½; Wheal Jane, ¾ to 1; Wheal Jewell, ½ to ¾; Wheal Kitty (St. Agnes), 1½ to 2; Wheal Peevor, 14½ to 15½. Wheal Uny, 3½ to 3¾; there is an improvement here in the 170 west; Mount Carbis, 3 to 3½; Phœnix, 3¾ to 4¼; West Godolphin, 2 to 2¼; West Tolbreen, 1 to 1¼; West Basset, 14 to 14½; at the meeting the accounts showed a profit of 1263*l.* on three months' working, and a dividend of 5s. per share (1500*l.*) was declared, leaving a balance in hand of 28*l.*; the tin sold (204 tons) realised 10,654*l.*; the accounts charged up costs to Oct. 1, and merchants' bills to August. Kit Hill, ⅝ to ⅞; Drake Walls, ½ to ¾; Goodevere, 1⅛ to 1¼.

COPPER is firm, but the business doing in shares in copper mines is very limited indeed. Bedford United, 1½ to 1¾; Carnarvon, ¾ to 1; Devon Great Consols, 7½ to 8½; Devon United, 1 to 1¼; South Devon United, 1⅜ to 1⅝; East Caradon, ¼ to ½; Gunnislake (Clitters), 3 to 3¼; Hingston Down, 1¼ to 1½; Mellanear, 4¼ to 4½; Marke Valley, 1¼ to 1½; Mona, 9 to 10; Mona Consols, 1⅛ to 1⅜; Morfu-du, ¾ to ⅞; New West Caradon, 9s. to 11s.; Pary's Copper, ¾ to ⅞; the sampling here is 200 tons of copper ore and 60 tons of copper precipitate. Prince of Wales, 14s. to 16s.; South Caradon, 50 to 55; West Caradon, 1 to 1¼; West Seton, 16 to 18; West Crebor, ⅜ to ½; Wheal Crebor, 3¼ to 3½. Devon Friendship, 1 to 1⅛; the large new pumping wheel will begin to drain the water below adit next week. The returns for October will exceed those for any previous month, and will progressively increase in future months. Sortridge, 1 to 1¼; the prospect still good and important discoveries expected ere long.

LEAD is firmer, but here again very little business is doing in shares, and prices are nominal. Vans are quoted 9½ to 10. The 120 west continues to look well. The sale of ore on Thursday, 200 tons of lead and 150 tons of blende, realised 2413*l.* 15s. Great Laxey, 18 to 19; the directors have declared a quarterly dividend of 6s. per share. Tankerville, ⅜ to ½; the setting report received this week shows a large amount of work in progress, and that all the three mines of the company are yielding fair supplies of ore. East Roman Gravels, 17s. 6d. to 20s.; the 109 south is worth 8*l.* per fathom for lead and blende, and the same level north 4 to 5 tons of lead ore per fathom. The new dressing machinery is working very well. Pandora, 15s. to 20s.; the 45 south is worth 25 to 30 cwts. of lead per fathom. The 33 south has improved to 1½ ton of lead and 1 ton of blende per fathom. South Darren, 1⅛ to 1⅜; the agent reports several improvements this week. Kirk Michael, 1 to 1⅛; one or two points here are looking better. Caron, 1 to 2; Crosswood, ¾ to 1¼. Frongoch, 3 to 4; this mine has sampled 150 tons of blende for sale. Grogwinion, 2 to 3; North Grogwinion, 1 to 1½; Goginan, 1 to 1¼; Red Rock, 1 to 2; New Wye Valley, ¾ to 1; Ystwith, ¾ to 1½; Great Holway, 5 to 5½; this mine will sell on Saturday 30 tons of lead and 40 tons of blende, the produce of a fortnight. Leadhills, 1¾ to 2; North D'Eresby, 1 to 1¼; North Herodsfoot, ⅜ to ⅝; Pennant, 4 to 5; Pen-yr-Orsedd, 1 to 1¼; West Holway, 35s. to 40s.

FOREIGN MINES.—Almada and Tirito, 3-16ths to 5-16ths; Birdseye Creek, 1¾ to 2; Brazilian Gold, 1 to 1½; Gold Hill, 1 to 1¼; Canadian Copper and Sulphur, 1⅜ to 1⅝; Chile Gold, ⅝ to ⅞; Colar, ½ to ⅝; Cootacovil, ⅜ to ⅝; Devala Central, ¾ to 1; Devala-Moyar, 1⅛ to 1⅜; Devala Provident, 1-16th to 3-16ths; Hoover Hill, ¾ to 1; Indian Glenrock, 1⅜ to 1⅝; Indian Phœnix, ⅞ to 1⅛; Indian Trevelyan, ¾ to 1; Indian Consolidated, ¾ to 1; Mysore, 1⅜ to 1⅝; Nouveau Monde, ½ to ¾; Ooregum, ⅜ to ⅝; Potosi, ½ to ¾; Rhodes Reef, ⅝ to ⅞; Santa Cruz, ½ to ¾; South-East Wynaad, 1⅛ to 1⅜; Tambracherry, 1 to 1¼; Wynaad Perseverance, ¾ to 1. English-Australian, 17s. 6d. to 22s. 6d.; by the advices received this week the returns of gold and pyrites for the month were 553*l.* 19s. 4d., and the cost 483*l.* 19s. The company lately received a fine bar of gold, weight about 135 ozs., value about 540*l.* The net balance in the colony was 1079*l.* 17s. Placerville, 2¼ to 2⅜; Michipicoten, 1⅛ to 1¼; Yuba River, par to ⅛; Kapanga, 6s. 3d. to 8s. 9d.; Cape Copper, 43 to 45; Chontales, ⅛ to ¼; Colorado, 2⅜ to 2⅝; Copiapo, 2¾ to 3; Emma, 2 to 2½; Frontino and Bolivia, 3¼ to 3⅜; I.X.L., 4s. to 5s.; New Quebrada, 4¼ to 4½; Panulcillo, 5¼ to 5½; Richmond, 15⅛ to 15⅜; Ruby, 4¼ to 4½; South Indian Gold, 1⅜ to 1⅝; Mysore Reef, ⅜ to ⅝.

The market for mine shares on the Stock Exchange has been somewhat inactive during the week, and closes decidedly weaker, probably in consequence of the weakness of the metal market. The standard for copper ore advanced at Swansea on Tuesday; and at the beginning of the week metals generally were fairly firm, but yesterday and to-day there has been a decided falling off in the demand, and a downward tendency in prices. This has naturally affected the share market, but it is hoped that it is but a temporary depression.

In Indian Gold Mine shares an average amount of business has been done, and prices remain without material change. The Colar Gold Mining Company have forwarded a notice: On Sept. 27 a telegram was received from the mines, stating that a new lode, 3 ft. wide, had been struck in No. 2 shaft, and on Oct. 5 the following message came to hand:—New lode, visible gold. These lodes were struck in the cross-cuttings under the old native workings. The question which naturally arises is—If this telegram reached London on Oct. 5, why was it not sent for publication on Oct. 8? Is not this delay giving the directors an unfair advantage over the general body of shareholders? The South-east Wynaad Estates and Gold Mining Company notify the receipt of a further telegram from their mining manager, Mr. J. J. Cooper, dated Oct. 12: Dressed 13 tons No. 5 tunnel, Elizabeth, contained 3 dwts. 8 grs. clear gold per ton; 3 tons pyrites, 2 ozs. 5 grs. per ton; tailings, 2 dwts. 7 grs. No. 5 tunnel Elizabeth is turning out rich. The Dingley Dell Estates and Gold Mining Company have received, under date Sept. 15, from their manager three certificates of assay made by Messrs. Orr and Sons, of Madras, which show—1. Gold, 9 dwts. 4 grs. per ton; silver, 15 dwts. 16 grs. per ton. 2. Gold, 16 dwts. 8 grs. per ton; silver, 3 ozs. 2 dwts. 2 grs. per ton. 3. Gold, 2 ozs. 12 dwts. 6 grs. per ton; silver, 6 dwts. 7 grs. per ton.

Australian antimony will probably receive the attention of British capitalists in the near future, for the Sydney Mail of August 27 says:—It is a pleasure to notice that, although our quartz reefs are being gradually deserted, owing to the superior attraction of the tin

mines, antimony lodes are being opened in various parts of the Hodgkinson. Mr. Nolan has taken up a selection in the neighbourhood of the Walsh, the prospects from which are believed to be better than any yet discovered. Mr. Byers has also secured a selection about seven miles north-east from Kingsborough, and from specimens exhibited, showing a fair prospect of gold in the antimony, should be a most promising venture. The shipment of ore by Messrs. Power, Thomas, and Madden by the Chyebassa (on which they advanced 15*l.* per ton) direct to London has no doubt caused these selections to be taken up, as miners now know that these gentlemen are prepared to make liberal advances on both tin and antimony, thus enabling persons with limited means to engage in mining operations, when, unless advances could be obtained, they would be debarred from entering upon such speculations. That the district is a vast mine of mineral wealth no one can doubt. The vast area of tin country already opened is of much greater extent than any discovered in any other portion of the colony. The richness of the lodes has agreeably surprised the prospectors. Not only the lodes but the immense deposits of stream tin, assaying from 60 to 75 per cent., is indicative of the wealth of the district. The returns from the present shipment of antimony, which should be known within three months, if favourable, will without a doubt result in the opening of many lodes now known, but not worked until the returns are known.

The Royalton Tin Mine Company, with a capital of 15,000*l.*, in shares of 1*l.* each, has been formed to work the well-known mine of the same name on Dinas Hill, St. Columb. It will be seen from the prospectus, in another column, that the sett is transvered by a large and well-known tin-bearing elvan, which for ages, by detrition, has supplied the celebrated Goss Moors with stream tin. It is amongst the earliest records in the history of Britain that the Oriental nations were attracted to the western part of our island by its productiveness for tin. The quantity of relics from time to time discovered in working the Goss Moors will prove most conclusively the great extent to which tin streaming was carried on by the ancient inhabitants of Cornwall in this district—in fact, so long back as the time when iron implements and modern tools were quite unknown, and all the necessaries for dressing and cleansing tin were formed of stone and hard wood. The great elvan traverses the Royalton sett from east to west, nearly one mile (30 fms. or 180 ft. less than the mile of 5280 ft.), and measures in width 72 ft. This immense tin-bearing mass is intersected by very numerous tin lodes, and from these, as well as from the numerous branches disseminated through the elvan by the lodes in their contact with it, large quantities of black tin have at different times been raised and sold by shallow and superficial workings, the last workings having produced about 20,000*l.* worth from a pit or quarry running only about 10 fms. below the surface, where the elvan yielded from 10 to 12 lbs. of tin to the ton of stuff. The Royalton elvans is 12 fms. wide, and tinny throughout, very much richer as it descends, so that an inexhaustible supply of material may be depended on to last for generations. Some little time ago with the view of more extended operations, the mine was inspected by some of the best known and most experienced mine managers and agents in Cornwall, and there was a consensus of opinion that here were present all the the conditions and indications pointing to profitable mining.

South Wheal Frances shares are reported to have been in great demand this week, advancing at one time up to about 17½ to 18, but although they have slightly receded, there is said to be every expectation of seeing these shares attain, at no distant period, a high figure, as the mines are opening out well, and quarterly dividends are expected to be resumed at the next meeting of shareholders in about four months' hence.

Devon Great Consols, 8 to 8¼, and in demand, owing, no doubt, to the steady rise in the price of copper. Devon Great United, 1¼ to 1⅜; satisfactory progress is now being made at the deep levels. Kithill, ⅞ to 1; the agent reports that the engine will be ready to work in about 10 days. Drake Walls, ¾ to 1; a satisfactory report has been received from Mr. Bawden as to the excellent prospects of the mines.

South Devon United, 1⅜ to 1⅞; the sampling of ore in August was 250 tons of copper ore, and it is understood that the sampling now made is about 380 tons, thus showing a highly satisfactory increase. As will be seen by the agent's report this week, the mines are looking better, and some important discoveries of ores shortly expected.

Richmond, 15 to 15½; the usual telegram from the mines at Eureka, Nevada, states that the week's run was $50,000, from 790 tons of ore. During the week the refinery produced doré bars to the value of $45,000. The manager (Sept. 21) reports that the 200 west drift has been extended 15 ft. in good looking ground for ore. The 700 east has been extended 10 ft.; this drift has passed through the belt of shale, and has entered the upper belt of limestone. The chambers are without any material change since my last. All the machinery, both in mine and smelting works, is working satisfactorily.

Ruby and Dunderberg, 4¼ to 4¾; the directors have decided to shut down the furnace at Eureka for the present until the bulk of the ore improves in value and the mines are more fully developed. This step is taken with the concurrence of Mr. R. Rickard, and in view of the termination of the agreement with the company's present smelter. The directors have made arrangements with Mr. Peters, M.E., to proceed to Eureka as resident manager of the mines and furnaces. The telegram this week advises an improvement in the value of the ore smelted, but the shipments having fallen off the furnace had only run five days. The detailed mining report advises a body of ore on the 700 ft. level in the Dunderberg Mine, which it is expected will develope into a considerable and valuable body, and in the Bullwhacker Mine the usual progress is reported.

Eureka (Nevada), 1 to 1⅛; work on the Bald Eagle Mine is being pushed; the shaft is now cleared and timbered to 225 ft., and drifting on the 150 ft. level under the old stopes has been started; the ground looks favourable for ore and good discoveries are looked for shortly. The Williamsburg Mine is producing considerable ore, 20 tons being ready for shipment.

It is announced that new machinery, of greater power, as recommended by the company's engineer, Mr. Thomas Rickard, is about to be applied at the California mine (Colorado), which, when completed, will considerably increase the output and mill runs. In contemplation of this arrangement the milling has been temporarily stopped.

The Quartz Hill Consolidated Gold Mining Company have received a telegram from their confidential agent at the mines dated, Central City, Colorado, Oct. 10: "Forty oz. troy; $160, mill has run 20 stamps this week."

Michipicoten, 1⅛ to 1⅜; two boxes of rich native copper have arrived from the mines, and are now on view at the company's offices in London. As specimens they are considered interesting evidence of the value of the recent discoveries made on the property.

In Lead Mine shares a considerable amount of business has again been done, and lead ores are fetching a satisfactory price. Great Laxey, 19½ to 20½ ex div.; the annual meeting was held in the Isle of Man on Wednesday, when the gratifying announcement was made by the Chairman (Mr. G. W. Dumbell) that since the accounts forwarded to the shareholders, and published in the Journal of Oct. 1, were closed (they extended from Feb. 5 to Aug. 6), they had made such satisfactory sales of mineral that the directors were able to declare the usual quarterly dividend at the rate of 30 per cent. per annum, absorbing 4500*l.*, and to carry forward over 3700*l.* to the credit of the current half year. A correspondent writes that the shares are in demand, and difficult to be obtained, owing to the mines looking well, and the highly satisfactory directors' report and accounts submitted to the meeting of shareholders on Wednesday last. The proceedings of the meeting will be read with interest, not only by shareholders, but by all investors in our leading home mining industry. The directors are to be congratulated on the energetic way in which the mines are being carried on; and it would appear that larger dividends may be paid at no distant period, with a gradual rise in lead and blende. Much of the prosperity of the mine in the face of adverse circumstances is attributed to the success which has attended the introduction of rock-boring machinery for facilitating the rapid development of the mine, and Mr. Peter Watson was complimented at the meeting for the earnestness with which he advocated its adoption when doubts concerning it were still expressed elsewhere. It must be admitted that not only at the Laxey mines but at all others he has strongly and constantly urged its advantages, and the shareholders at Great Laxey will now begin to benefit in the future by quickly laying open large reserves of ore ground. The telephone is at work, and answering well; the man-engine is now being put together; and a new north shaft has been commenced. Energetic work this, and costs money, and yet with all this outlay see the dividends they have paid—four dividends this last twelve months of 6s. each, and they have nearly another 6s. dividend in the amount carried forward.

Tankerville, ½ to ⅝; a long report on the three united mines gives the value of the several points in operation, and it will be seen that lead and blende ore is now likely to be obtained from the Bog and Pennerley mines forthwith.

Roman Gravels, 12 to 13, and in great demand, no doubt owing to the good discoveries of ore now being made. The report of the agent this week states the 65 end south to be worth quite 15 tons of lead ore per fathom, or worth about 150*l.* per fathom.

Green Hurth, 7 to 7¼; a dividend of 5s. per share has been declared. A Newcastle correspondent writes that the mine is very likely soon to take a position among the richest lead mines in England.

Bwlch, 3 to 3¼; it is reported that the new drawing machinery at the old engine-shaft was started last Saturday, and that as soon as the accumulation of leadstuff from Marvin's lode is drawn an increased stoping force will be put at work. It is stated that the five productive points in operation are increasing in value. The value of 55 tons of silver-lead ore sold has been placed on deposit with the company's bankers.

West Lisburne, 1¼ to 1⅝; In a few days the London shaft will, it is said, be completed, thus commanding the ore ground to the 46 fm. level, when the stoping of ore stuff in reserve will be continued, and the levels further extended.

Pantymwyn, 1⅞ to 2. It is reported that the 22, west of Modlyn, is in ground congenial for ore, and would ere this have cut into the first run of ore, but a cross-course has altered the underlie, and thrown it further west. British Silver Lead, 1 to 1⅛; the shaft and 10 yard stope in the Newborough lode, are reported to be each worth 30*l.* per fathom. Minera, 8 to 9; the 270, west of Taylor's, shows spots of lead and blende, and the 290, west of Meadow, has a rich lode for blende, with lead in it. Talargoch: The bottom level has a fine course of ore in it, which is thought to be going down,

East Long Rake, 1 to 1¼; it is reported that the various points of operations at this mine continue to open up productive ground. The level going west on the middle lode especially is proving that the lode in this direction is valuable, and likely to return large quantities of ore in the course of its development. The dressing machinery is fixed, and will be at work in a few days, after which they expect sales of lead to commence, and to be regularly continued.

GAS SHARES.—The principal business in these shares, according to this evening's report of Messrs. W. L. WEBB and Co., of the Stock Exchange and Finch-lane, has been—Bombay (Limited), new, 4¾; Cagliari Gas and Water, 21⅛ to 21¾; Commercial, 193; ditto, New Stock, 148; Continental Union, 22⅞ to 23¼; ditto, new 1869 and 1872, 15¾; European (Limited), 20¼; ditto, new, 9⅛ to 9 1/16; Gaslight and Coke, A, ordinary, 175¾ to 174; ditto, C, 10 per cent. pref., 218½; ditto, D, 10 per cent. pref., 217 to 218; ditto, H, 7 per cent. maximum, 135 to 135½; Imperial Continental, 195 to 193½; Malta and Mediterranean (Limited), 2; Monte Video Gas, 15⅛; Oriental, 6½; Rio de Janiero, 26¼; South Metropolitan, A, 210 to 212; ditto, B, 181¼. Gas stocks dull, except London and Commercial. For closing prices see list on the last page of Journal.

INSURANCE SHARES have, according to this evening's report of Messrs. W. L. WEBB and Co., of the Stock Exchange and Finch-lane, been dealt in as follows:—Alliance, British, and Foreign, 22 to 23; Atlas, 18⅞ to 18¾; City of London Fire (Limited), 1 13/16 to 1¾; City of London Marine Corporation, 1 11/16; Commercial Union, 25⅛ to 25; Employers' Liability Insurance (Limited), 1⅝; Fire Insurance Association (Limited), 4¾ to 4 13/16; Globe Marine (Limited), 1½ to 1⅝; London and Provincial Marine, 4⅞ to 5; London and Staffordshire Fire, ¾; Merchants' Marine, 1⅝ to 1½; Rock Life, 8⅜ to 8½; Railway Passengers, 7½ to 7⅝; Standard Fire Office (Limited), 1¾ to 2; Universal Marine, 8⅞. Insurances idle. For closing prices see list on the last page of Journal.

TRAMWAYS.—The closing prices of this evening, as quoted by Mr. W. ABBOTT, of Tokenhouse-yard, are given in tabular form in the 12th page of Journal.

RAILWAY AND GENERAL MARKETS.—Referring to the course of business done to-day during official hours (11 to 3) Mr. Ferdinand R. Kirk, 5, Birchin-lane, writes:—*Opening:* There is a further decided rally in prices; the pace appears almost too good to last. Trunk Thirds done at 37¼ on Wednesday are 40. Brighton, A, are up to 140, Great Western to 131, and Great Eastern to 73. North British are quoted ex div. this morning, and the price is 87, equal to a further advance of ¾. Egyptian Unified 75⅞ to 76½; ditto pref., 96⅜ to 97½; Turks, 15⅜ to 15⅝. There is now a good profit to recent buyers of American shares. Eries are up to $48⅝ and Readings to $35. Nouveau Monde, ⅝ to ¾; Ruby, 4¼ to 4⅜; Richmond, 15½ to 15⅝; Poirose, ¾ to ⅞; Wheal Peevor, 14½ to 15; Wheal Lovell, 2½ to 3; South Indian Gold, 1 1/16 to 1 1/16; Prince of Wales, 14s. to 16s.; New West Caradon, ½ to ⅝; Carnarvon Copper, ¾ to 1; Devon Great Consols, 7¾ to 8¼.—*Closing:* The mid-October settlement is now concluded, but the markets are not active. Business is a good deal retarded by numerous interruptions in the telegraph system owing to the severe gale. Trunk Thirds are now only 39⅜, but have been lower. Turkish Fives have improved ⅛. North British are ½ lower. Emma, 2 to 2½; New Kitty, 2⅛ to 2⅜; Don Pedro ⅜ to ½; Port Phillip, ¼ to ⅜; Potosi, ⅝ to ¾. Lombard Railway shares have receded to 14⅜.

EAST LOVELL.—This mine looks very well, but a great discovery is looked for in sinking the engine-shaft. Shares are being absorbed at enhanced prices.

NEW TRUMPET CONSOLS is likely to attract great attention shortly. Valuable discoveries are looked for immediately.

WEST GODOLPHIN.—The mine we hear has improved during the past week.

GREAT HOLWAY.—Further good news is expected from this mine during the current month. The 80 east will in a few days be available for extensive operations, and consequently the great course of lead going down in the 60 bottom can be attacked from the lower level, thus enabling the management to double the returns of lead: 70 tons of lead and blende will be sampled on Saturday, and other sales will take place. A dividend is looked for at Christmas.

DEVON FRIENDSHIP.—In the coming week the new pumping-wheel will commence to drain the water below adit, and within a fortnight afterwards the 12 fm. level is expected to be clear. When the 30 is drained the directors intend to visit the mine, when it is hoped that many of the shareholders will also be present. The returns for October will exceed those for any previous month, and in succeeding months a progressive and considerable increase will take place.

SOUTH DARREN.—The 120 east has improved to 1¾ ton of silver-lead ore per fathom. and the 110 west is also worth the same, and three stopes in the latter level average 1½ ton per fathom. The 45 tons for the month realised 644*l.* 12s. 6d. This will likely become a largely paying mine when the boring machinery is erected and the eastern part of the mine opened out.

PANDORA.—The 45 south is worth 25 to 30 cwts. of lead and same of blende per fathom, and the 33 south is improved to 1½ ton of lead and 1 ton of blende per fathom.

EAST ROMAN GRAVELS.—The 109 south is valued at 8*l.* per fathom for lead and blende, and the same level north 4 to 5 tons of lead per fathom. The new dressing machinery continues to work very well, and the boring machinery will soon be in operation.

ENGLISH-AUSTRALIAN.—The accounts received this week again show a profit. The company lately received a bar of very fine gold, worth about 540*l.*, leaving the net balance in the colony about 1080*l.*

ARENDAL.—The reports from the managers continue of the most satisfactory character. By the latest advices they state that the lode in Brown's shaft, sinking below the 75, is worth 3 tons of copper ore per fathom, and that they intend to push down to the 100 as quickly as possible. The lode in the 75, east of this shaft, is a splendid lode, being 3½ ft. wide, and will yield 6 tons per fathom. The winzes and stopes are yielding their usual quantities of ore. In a few days they expected to begin stopes in the 60, where they have a long run of ore ground opened. As soon as the 75 east and No. 2 winze are communicatad they will have 750 fms. of ore ground laid open east of Brown's shaft, beside the ground opened between that and Lamb's shaft. The lode at the shaft at Boilstad is worth 1½ ton, and at the new shaft, down about 5 fms., over 1 ton per fathom. The new dressing machinery is working very well, and further shipments of ore are being made, which are likely to be much increased before long.

Notices to Correspondents.

*** Much inconvenience having arisen in consequence of several of the Numbers during the past year being out of print, we recommend that the Journal should be *filed* on receipt; it then forms an accumulating useful work of reference.

Mine Management at Gunnislake.—We cannot publish any further letters on this matter without the writer's name being appended. "A Large Shareholder" says—"Another point which Mr. Nicolls's letter does not answer is—Did the mine committee at a meeting authorise the manager to order the boring machines? I have it on the authority of one of the mine committee, told to myself, that the committee did not. All Mr. Nicolls vouchsafes to say is 'we are willing to answer for our conduct at the general meeting.'"

Share Dealing—"W. H. W." (Folkestone).—The broker is "bound to deliver transfer as soon as the shares have been bought and paid for," unless there be a special arrangement that the delivery shall be delayed.

Hornachos—"B. B. and G." (Edinburgh).—The quotation was supplied from the company's office, and it is understood that transfers have been registered at that price. If "B. B. and G.," being stockbrokers, can buy at 5*l.* per share, their best course would be to apply to the secretary for names of the purchasers at 10*l.*, it being well understood that when quotations are given, those giving them are prepared to buy at the lower and to sell at the higher.

Sir,—Can any reader give me information respecting the West Swansea Colliery Company and the Killow and Three Crosses Colliery Company, both started in 1873? The shares were 10*l.*, and have been paid-up some years. The secretary, when last I heard of him, was F. Warwick, and the office of both companies in Bucklersbury, London.—F. G. Flinn: *Handsworth, Birmingham.*

Indian Subscribers,—"M. C." (Coinbuconam).—We are obliged for the suggestion, but fear that at present it would be altogether impracticable to publish in time for the Indian mail on Friday. It is essential that Friday's markets should be given, as many transactions in ores and metals are based upon them. Every effort shall nevertheless be made to publish at the earliest possible moment.

Canadian Copper and Sulphur Company—"A." (City)—The statement, 40 tons, is due to a typographical error, which we much regret. The paragraph should read:—"Telegram received, Oct. 4, as follows: Smelting begun well. Sept. ores, 400 tons."

Mining and Quarrying Literature—"J. L." (Coniston Mines).—There is no second book by the same author. If you send a statement of what you require to a local bookseller he will obtain for you the information through the trade in the ordinary manner; or write to Andrews and Sons, of Durham, or any publisher at Newcastle-on-Tyne.

If "J. B." (Sheffield) will communicate with us we shall be able to answer his enquiry.—Williams and Michell: *Swansea.*

Sir,—I noticed the article in last week's Journal upon a New Dry Process of Extracting Ammonia. Will any reader kindly give me all the particulars they can regarding this, or put me in communication with Prof. Wanklyn, by giving me his address. He apparently is the discoverer of the process?—R. G.: *Edinburgh, Oct.* 13.

Spanish Conversation—"T. T." (Coventry).—Either Simpkin and Marshall, or Whittaker.

Received,—"J. D." (Aberdare)—"J. C. H."—"J. W." (Manchester)—"E. W. H."—"B. W."—"A. T. S." (Richmond)—"A. F." (Tavistock)—"C. L." (Cheltenham)—"E. M." (Callington)—"F. D."—"W. P."—"N. U." (Tighnabruaich)—"Shareholder" (Great Polgooth)—"Eureka"—"Old Proprietor" (Dolcoath)—"Mentor"—"Shareholder" (East Long Rake)—John Scott (Bayswater)—"Shareholder" (Wheal Greenville)—"Shareholder" (West Pateley)—"One Interested" (Redruth)—"R. W. B."

THE MINING JOURNAL,

Railway and Commercial Gazette.

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MINERS' ASSOCIATIONS.

The value of Miners' Associations during the last few years has been recognised by mine owners as more beneficial than otherwise, and this has resulted from the marked change which has taken place in the tone and action of the leaders of the workmen generally throughout the country. Not so very long since at meetings of the workmen, both public and private, the speakers who abused the masters most were the most heartily applauded, and there was no lack of agitators who pursued that policy, having found it to be the most profitable. But it would now almost appear as if a new generation had sprung up, opposed in every way to the traditions and policy of trades associations, not above a decade since they were in full force, but which had been carried out for nearly a century. A different class of men it is evident has been placed at the head of the various miners' societies, positions which they have attained by their superior abilities and reasoning powers, and this has led to the workmen being very different to what they were, and looking at the relations between themselves and their employers from a point of view which they did not formerly reach. Any disagreement used generally to be followed by a strike as the best way of enforcing a settlement, so that the men in the long run were the greatest losers, for their employers were generally so incensed that they refused to concede to what they considered as force what they might have given had they been met in a friendly spirit. So strong, indeed, was this feeling that owners of mines—and no doubt other large employers of labour as well—refused to see the leaders or delegates who were appointed to wait upon them, so that long and exhausting struggles ensued, which generally resulted in the men giving way after exhausting the society's funds and bringing their families to the verge of starvation. But all this is now changed, so that strikes are now of rare occurrence indeed in either our mining or manufacturing districts, and the leaders of the working men have set their faces against them as a relic by no means creditable to those who were engaged in them. Of this we have a proof to hand just now in Lancashire, where in the early part of the year there was a strike under most peculiar circumstances not directly connected with the wages question, but principally with respect to the Employers' Liability Act. However, on Monday last an adjourned conference of miners' delegates from various parts of Lancashire was held in Wigan to consider the replies of the masters to an application made on the part of the miners for an advance of 15 per cent. in wages. The replies were to the effect that whilst admitting there had been a slight improvement in the trade, yet as it was questionable whether it would be permanent, it was asked on behalf of the employers to let the application stand over to the end of the month, and were the improvement to turn out permanent the request in all probability would have been granted. A year or two since this would have been looked upon as a *casus belli* to a marshalling of forces for the war, and the sending out of foraging parties to all our mining districts for the purpose of helping the military chest and the commissariat department, for wives and families would then have had to be kept as well as the army itself. But instead of this the delegates—although the men's notices would have expired the next day—gave credit to the masters for sincerity, and whilst expressing regret that they were unable to concede the 15 per cent., agreed to extend the notice to the end of the month as requested. The conciliatory feeling we believe will be fully appreciated by the masters, who can now appreciate the value of miners' associations when they are conducted with moderation, and by men who seek only for that which is fair in the interests of those they represent or lead. It is this which has led to so many disputes being settled by arrangement between employers and the representatives of the men without work being interrupted or a feeling of antagonism engendered by those whose true interest lies in harmony and limited action. Industrial wars between capital and labour have not only injured trade, but have been most prejudicial to the interests of the working classes; and it is, therefore, matter for congratulation to find workmen and employers approaching so near to each other as to act for their mutual interests, seeing that so much of our future prosperity depends on our being in a position to maintain our supremacy in the markets of the world.

To effect the objects of joint action in promoting our great industries nothing has done so much in that direction as the agreement come to in many parts of the kingdom to have all disputes, more particularly those relating to wages, settled by means of boards of conciliation and arbitration. One of these has been in successful operation for several years in the North of England. Many of the ironmasters there are also owners of ironstone mines, and up to 1869 their trade was in a state of the greatest disorder owing to strikes, and heavy losses were sustained on both sides, when it was determined to establish a union by the ironmasters, this being followed by one on behalf of the men. An agreement was come to, and a board of conciliation and arbitration was formed, both masters and men being represented upon it. In cases where the board has not been able to agree, then the matter in dispute was referred to an umpire. Since the formation of the board in 1869 it appears that the rate of wages has been regulated. In 31 instances 13 were by arbitration, 15 by sliding scales, and three by mutual agreement. Mr. Dale, the Chairman of the board, and well known in connection with the iron trade of the North of England, on being presented with his portrait a few days ago, on his retiring from the position he has so satisfactorily filled, and with the most cordial kind wishes of the representatives of the masters and men, said from his long experience he had found that the best security the employers can have for the rule of reason and the observance of engagements on the part of the operatives of any trade is that the operatives should have amongst themselves a union strong in numbers, and with an able and thoroughly trusted executive, and that men placed by their fellows in a position of trust should be of such material as not to shrink from taking even an unpopular view if it turned out to be the right one. Of late years we have found the representatives of the mining as well as other bodies are far more independent than those who formerly were placed in such positions, so that with their knowledge of facts which cannot be at the command of the great body of workers, so that they are not led as formerly by the passions or prejudices of the men, but endeavour to lead them. In this they have succeeded, for we know that in nearly all of our principal mining centres, when a difficulty occurs, as to wages more especially, and where the men fancy they have a real grievance, the 'chief executive officers are sent for by the masters, who place before the representatives of the men their views on the points in dispute, as well as such facts as they can bring to bear with respect to it. A discussion of course ensues, carried on in a friendly spirit, and a satisfactory result in most cases is arrived at. The men are made acquainted with certain matters relative to what they consider a grievance, but of which they were before in ignorance, and an arrangement is come to without stoppage of work or loss on either side. By this mingling together with employers on such occasions the workmen's delegates see that masters are not tyrants; for they are met with the greatest courtesy, candour, and moderation, and have the opportunity which is always afforded when two sides of a question are made bare of either convincing or being convinced—both sides showing respect for the feelings and opinions of the other. It is this state of things which has taken place within a very few years that has led to so few strikes in our mining districts, and with so much benefit to the workmen and their families. That boards of conciliation in mining matters have done great things we need merely refer to a resolution proposed by Mr. Burt, M.P., the other day in Newcastle, to the effect that such boards "tended to improve trade and commerce, and prevented the wilful waste of employers' and workmens' time by strikes and locks-out, which have engendered ill-feeling and distrust where there ought to be mutual confidence and respect." Mr. Crawford, of Durham, on the same occasion, also said from 25 years' experience he could speak of the benefits of arbitration when compared to the ruinous custom of strikes and locks-out. With such testimony from mine owners and the representatives of miners we consider we are justified in saying that miners' associations, as they are at present, are capable of doing and have done good work, and have been the means of keeping down both strikes and locks-out, so that they should be fostered more than otherwise by those who are connected with mines.

RECENT IMPROVEMENTS IN MINING MACHINERY AND APPLIANCES.

The extension of mining operations during the last few years in all parts of the kingdom, and the sinking to greater depths than was ever attempted before have led to increased difficulties being met with requiring different machinery and mechanical appliances to what was previously found sufficient for all necessary wants. These requirements have been fully met by new inventions of a really practical and scientific character, so that the skill of the inventor appears to keep pace with the demands of the miner as he burrows deeper and deeper underground. If we begin with rock-drills we find that within the last few years great improvements have taken place with respect to them, in a great measure due to the competition that has taken place, which has tested to the utmost the skill of the makers, and it would be a difficult matter to say where the superiority for all purposes was to be obtained or looked for. Ore crushing machinery has been brought to a high state of perfection, and we have the well-known names before us of several makers whose specialities are to be found in all our mining districts, one of the latest being Lucop's patent centrifugal pulveriser, and we have seen the Elephant ore stamps, made at the Sandycroft Foundry, which is situate at no great distance from the residence of the Premier, close to the River Dee. In the North of England there are several lead mines producing vast quantities of ore, and without exception the largest we have. In this department of metallurgy it is claimed for a local man, Hugh Lee Pattison, that he was the projector of the desilvering process, by which the mass of the melted metal in cooling allowed the mechanical separation of pure solidified lead from the silver, which was found in the portion longest remaining in a fluid state. In the ventilation of mines the improvements of late years have been most valuable, and will be still more so as greater depths are sunk to, for after a certain distance has been reached from the surface mechanical appliances will become a greater necessity than at present. This is best accomplished by means of the ventilating fan, a machine by which from 250,000 to 300,000 cubic feet of vitiated air is withdrawn every minute, its place being supplied with pure air from the surface. The best known fans at present in use are the Schiele, the Guibal, and the Waddell. The first-named requiring but little room, or masonry, which is not the case with most others. Another successful agent in aiding ventilation is compressed air, which is now being applied at a great number of mines in all parts of the kingdom, and by its means stone drifts and distant work can be well ventilated, and the workmen kept cool. It is also particularly well adapted for the driving of machines for cutting coal, ironstone, or other minerals. Such machines, including those of Firth, Meiklejohn, Gillott and Copley, Walker, Hurd, and others, although they have shown good and profitable results, do not appear to have got very far beyond the experimental point, for mineowners have not given any of the inventors that encouragement they so well merited. Still such machines will have to be adopted, especially in deep mines, where the exhaust air could be made available for cooling the working places, and rendering them endurable when the temperature otherwise would be almost unbearable. Some of the machines have lately been improved, and instead of being constructed of iron are now made of hard steel, being not only much lighter but more durable. Pumping machinery forms an important item in connection with mining operations, and in none of our mechanical appliances have greater improvements taken place.

The old, expensive, and ponderous machines have been going out of use, and are now to be met with at comparatively few places, having given way to more effectual and less costly apparatus. Amongst these may be mentioned the Tangye steam-pump, which has done good work in most of our mining districts. The Cameron steam-pump, which can be seen at work at several coal and other mines, doing its work most satisfactorily, and leaving nothing to be desired. Of recent inventions, however, the Davey Compound Differential Engine has already taken a good position, and has been proved to be most effectual, and the inventor claims for it that the first cost taken altogether for engines and buildings is 50 per cent. less than that of Cornish engines; require less costly pitwork, giving a higher duty under similar conditions of working, saving the pumpwork from the heavy shocks and breakages arising from the pumps taking air, whilst every detail is on one floor, and consequently easily accessible. There is also Davey's Hydraulic Pumping Engine, advantageously worked in mines to raise water from the deep workings to the main pumping engines. There are also several special pumping engines for which certain advantages are claimed by the inventors, but those we have alluded to are about the best known. There are many descriptions of boilers in use, but the great object sought for is the economy of the consumption of fuel, and this is of great importance at many of our metalliferous mines which are far distant from any coal field. The multitubular boiler has done good work, but the greatest improvement at present is said to be the great increase of steam production in our boilers, and it has been found that 1 ton weight of a locomotive boiler produces as much steam as 6 tons of an ordinary steamboat boiler. The solution lies in the possibility of burning more fuel and taking nearly all the heat out of it. From some important experiments it has been found that iron plates, as to endurance, are not to be compared with steel, whilst they are also less ductile, so that steel is much superior to iron for boilers. The consequence is that steel boilers are now being made for mining as well as other purposes, and in the long run will be found the most economical, although rather more costly at first. The drawing engine for a mine affords a wide field for the party purchasing it, for in it the maximum of expansion should be obtained, the maximum equality of motion, and the greatest compactness, strength, and cheapness, not only, indeed, as regards the engine itself, but with respect to the engine-house and foundations.

To obtain a high measure of economy in fuel, it is not sufficient that steam of a good pressure should be worked expansively, but the steam should also be superheated to a moderate extent, and the air cylinders in which the expansion takes place should be steam-jacketted. In good compound engines the consumption of fuel per indicated horse-power should not be more 2 lbs. In connection with engines and boilers, it should be remembered that a saving in fuel means a saving in wear and tear, and also a saving in boilers. In connection with engines, there is a simple invention that is well worth adopting, known as Smith's Patent Fairy Boiler Feeder and Water Elevator, which lifts water from one level to another, so that there is no loss of time in feeding. In some mines, especially where coal is worked, a screen at the top is indispensable; and one of the best known inventions for the purpose of removing the refuse sent up along with the mineral is that known as Dixon's Patent screen. The screen consists of a web of wire-ropes held at certain distances by rods and washers, and is made to travel slowly along by the gearing from a steam-engine, carrying the mineral along with it, the dross and refuse being removed by persons standing on either side of the platform. Star wheels are so placed between the ropes as to revolve, and in so doing case up the larger coal or other mineral sufficiently to allow of the small parts to pass through the meshes of the screen. The screen is by no means an expensive article, whilst its efficiency cannot be questioned. As to ropes for drawing, some trials recently made at Portsmouth have proved that steel wire is made possessing flexibility equal to the best hempen rope, combined with less weight, superior handiness, and greater endurance, without any increase in the first cost. Seeing at the present time, when so many new mines are being opened out and old ones refitted, the great object in purchasing machinery and appliances should be to obtain such as will give the greatest amount of durability and efficiency at a minimum cost; and it is with these objects that we have called attention to certain mining specialities that are indispensable, and from which those in charge of mines may be able to give consideration without wading through volumes of matter which may not contain exactly what they require.

AFFAIRS IN NEW ZEALAND.

We do not hear so much now as to the over-borrowing of the New Zealand Government, and the perils incurred by the holders of New Zealand bonds. At one time, according to such journals as the Times and the Economist, it might have been supposed that the New Zealand Government was drifting to inevitable bankruptcy. It was really most lamentable to see contemporaries of the deserved reputation of the Times and the Economist most incomprehensibly shutting their eyes to the very widely recognised fact that a colonial Government has a right, to some extent, to discount the future, and also to rely upon the reproductive character of all useful public works which it may undertake. Had the New Zealand Government borrowed large sums of money in England for the purpose of waging war—say, against Tahati or the Sandwich Isles—we should have said that the Times and the Economist were fully justified in the gloomy views which they expressed in regard to New Zealand finance. But the New Zealand Government has not engaged in any of the barren dynastic conflicts which have so crippled the resources of most of the old established nations of Europe. The New Zealand Government was certainly compelled in the early stages of the colony to raise loans to meet the charges of the lamentable wars which were forced upon it by the Maories. But for the last eleven years profound peace has happily prevailed throughout New Zealand, and during that period all the loans contracted by the colony have certainly been of a pacific, useful, and reproductive character. For instance, the Finance Minister of New Zealand has negociated loans for the purpose of bringing immigrants into the colony from the Mother Country; and every immigrant so landed has undoubtedly increased the tax-paying power of New Zealand as a community, and served to stimulate the development of her commerce and industry. Similar results have attended the establishment of the harbours and railways projected by the Government during the last ten years, and established with the help of loans raised in the Mother Country. The public works fostered and undertaken by the New Zealand Government have not only had the indirect effect of opening out the vast undeveloped resources of the colony, but they have also added directly to its public revenue, so that New Zealand presents once more exhibits a budgetary equilibrium.

We have been induced to make these observations because although New Zealand may at no very distant period produce the iron which she may require, for the present she must obtain it from the Mother Country, and she accordingly affords a valuable market for the products of the British ironmaster. New Zealand has developed a substantial railway network with remarkable vigour; and as further lines are still to be constructed, the colony appears likely to appear as a purchaser of iron and steel in various forms upon the markets of the Mother Country for some time to come. It is true that the Americans have their eyes open upon New Zealand, and that they are endeavouring to do business in the colony; but we do not think that as regards iron and steel we need fear American competition very much upon New Zealand markets. In the first place, Americans cannot supply their own iron and steel requirements; and, in the second place, American ironmasters are enfeebled by protection, and cannot compete with British opponents in markets upon which unrestricted competition prevails. American locomotives have certainly secured a footing, so to speak, in New Zealand, but this is to be attributed to special features introduced into their construction which render them peculiarly suited to the rough railways of young colonies. Upon the whole, our ironmasters appear to us to have cause for rejoicing in the prosperity of New Zealand, and for looking forward with confidence to a satisfactory current of New Zealand orders.

Dynamite Explosion off Garvel Point, near Greenock.—The report of H.M. Inspector of Explosives, Major A. Ford, R.A., on the circumstances attending an explosion of dynamite at this place on April 16, has just been issued, having been delayed pending the trial of a man inculpated, but since found not guilty. As to the cause of the explosion, it is remarked there can be no doubt. The diver went down to the bottom of the river and fixed the two charges into the holes; he came up again, and reported that they were ready for firing; the shot-firer then cut off the fuses and lighted the ends in the usual manner; in the meantime one of the charges had by some means been drawn out of its hole, and the fuse of that charge was, therefore, cut shorter than that of the other; the released charge floated to the surface, and was caught under the raft, where, after about half the usual time for a charge to go off, it exploded, killing four and more or less injuring six of the men. Thus out of a total of eleven on the raft only one escaped altogether unhurt. All the men, with the exception of the one who escaped, were standing near the point of the explosion; this accounts for the very great loss of life and personal injury in proportion to the charge, which consisted of not more than about 1½ lb. of dynamite. The destructive effect upon the raft was comparatively small, but the men were nearly all

standing together, and were so placed as to receive almost the greatest possible effect from the charge.

PERMANENT TRAMWAYS.—Although primarily intended for street tramways the invention of Mr. R. S. DUGDALE, of Huddersfield, would appear to be equally applicable for use about mines and collieries. The chairs or bearers for supporting the rails are of cast-iron, with a new combination and arrangement of parts, and may be cast on lengths of suitable dimensions. The base of each bearer is a flange of concave form, open at the top, and of breadth sufficient to ensure stability. The concavity in the flange forms a space wherein concrete is packed during the laying of the permanent way, as hereinafter mentioned, whereby lateral stiffness is secured, and displacement obviated. Preparation is also made for the introduction of a gauge compelling bond. The body or vertical portion of the bearers, in the upper surface of which a groove is formed to receive the rail, may be solid, or with one or more openings formed in them. The rails may be either of steel or iron. In constructing the permanent way a length of trench of suitable dimensions is dug, in which a layer of concrete is placed. A corresponding length of rail is then fastened to the bearers by taper spikes, or other suitable means, and the rail and bearers thus combined are placed in the trench, the flanges of the latter resting on the layer of concrete. The former are then packed up to the required rail level, and another layer of concrete is placed in the trench, and brought up to the requisite road level.

TRADE OF THE TYNE AND WEAR.

Oct. 12.—The shipments of best steam coal have been larger during the past week than in any week in the present year, a considerable number of steamers having gone to the Baltic. The docks and shipping places continue to be very fully supplied with tonnage. The prospects for the best class steam coal trade are good for the remainder of the autumn. Second-class steam coal is also in fair request, and there is also a good enquiry for manufacturing coal for shipment, and also for local consumption. The gas coal trade is extremely brisk, and the shipments at Tyne Dock and other docks and shipping places in the Tyne and Wear have been very large during the week. On Monday the coal market at the Newcastle Exchange was very firm; second-class coal is coming more into demand. Manufacturers continue to evince a desire to secure coal for winter supply, but business at some of the second-class steam collieries is kept back through a continued short supply of tonnage—steamers expected have not arrived. A large amount of tonnage is engaged to load this week. The house coal trade is improving, and prices have also increased here and at the London and other markets; 19s. per ton has been got lately for this coal in the Thames.

The system of selling this coal to middlemen on the Thames has long occupied the attention of coalmasters and merchants here. It has been the impression here that by this system the London merchants secured the largest share of the profits; it is, therefore, pleasing to observe that the Marquis of Londonderry has initiated an entirely new feature in the coal supply of the Metropolis, and is now prepared to supply consumers direct from his own pits, carrying the coal in his own steamers from Seaham Harbour, and selling them direct to the consumer from his own wharf at London without the aid of the middleman, who is generally credited with reaping the largest profit, and is also accused with rigging the market at times to a considerable extent. Lord Londonderry has bought St. John's Wharf, Westminster, and his coal will be supplied from there to large and small consumers to any extent. This new business was commenced two weeks ago, and so satisfactory has been the progress that it is fully expected the undertaking will prove a great success.

The iron trade has been rather unsettled during the week, partly owing to the celebration of the jubilee at Middlesborough. About 43s. No. 3 is still the price of iron. The demand continues good, and stocks are still decreasing; Messrs. Connal's stocks are now 184,000 odd tons. As the make is reduced stocks are expected to be decreased more. The prices for present and future delivery are about the same. There is a steady demand for manufactured iron of all kinds. The great rise of freights at the north-eastern ports is expected still further to increase the demand for iron ships. The prospects for the demand for ship-plates and other finished iron are, therefore, good at present. Plates are quoted 6*l.* 10s. to 6*l.* 12s. 6d.; angles, 6*l.* to 6*l.* 2s. 6d.; and bars, 6*l.* The reduction of wages of iron ore miners and also blast furnace men (2½ per cent.), and the reduced amount of work at the mines, will cause more dissatisfaction amongst the men, and probably make them more desirous of putting an end to the sliding scale arrangement, of which they have given notice. On Tuesday the quarterly meeting of the North of England iron trade was held at Middlesborough. There was, however, only a scanty attendance, owing to the meeting of the Iron and Steel Institute in London. A very firm and steady feeling about the trade and prices was, nevertheless, well maintained. No. 3 pig, 43s. to 43s. 6d.; warrants same price. Messrs. Connal's stock is being sensibly reduced, the decline for the week being 2396 tons. Shipments have been large during the past week, and the shipments for October are expected to exceed those for any previous month this year. The demand for manufactured iron of all kinds and for steel continues to improve. There were several stalls in the Exchange where articles connected with the steel and iron trades were exhibited. Some splendid specimens of steel castings were sent by Messrs. Butler, of the Rosebery Steelworks. There were several wheels and tools, the fractures in the steel showing the highest quality. There was likewise an interesting exhibition of asbestos goods by Thomas Macnay and Co. The same firm also showed different methods in which silicate cotton (slag wool) can be applied. Messrs. Chapman and Co. showed some fine specimens of white and coloured bricks, glazed bricks, &c. There were also other exhibits, including some from the Silver Plating Company.

THE JUBILEE OF MIDDLESBOROUGH.—The foundation of this wonderful iron town fifty years ago has been celebrated by a jubilee, which was the occasion of much festivity. The decoration of the principal thoroughfares of the town, which was undertaken by the Corporation, consisted of tall Venetian masts, each being covered with crimson cloth, surrounded by gold crowns and large gilded spear-heads alternately. Upon each mast was affixed a handsome trophy of national flags, faced with armorial shields bearing the arms of Middlesborough and the towns of Yorkshire, interspersed with royal arms and Prince of Wales plumes. From the summit of every mast was a 9-ft. national banner. An important feature of the celebration was the unveiling of the Bolckow statue, which was done by Lord F. Cavendish in the presence of a large assembly of people. Henry Bolckow and John Vaughan first founded the ironworks of Middlesborough. The company of Bolckow and Vaughan have also introduced the manufacture of steel on a large scale into the district. The same Mr. Bolckow, fourteen years ago, presented the people of Middlesborough with a park, and two trees were planted in this park on the day of the jubilee. A banquet was held in the Royal Exchange, which was a brilliant affair, 500 ladies and gentlemen attending. The Mayor, Mr. C. Willman, occupied the chair.

Mr. JOSEPH COWEN, M.P., in proposing the toast of the evening, "Success to the Town and Trade of Middlesborough," sketched the history of this remarkable town, and on concluding his speech he remarked that there was an opinion that England had reached the zenith of her industrial power, and that her future would be downward. He did not share in those opinions. In common with the rest of the world they had passed through a period of great and prolonged depression, and some economical Cassandras had used the occasion to utter Jeremiads on the decadence of British trade. But there were periodical eclipses in trade. He believed there was really no good ground for the doleful prediction indulged in as to the destiny that awaited our manufactures and general commerce.

The rise of Middlesborough has been most remarkable; previous to 1822 it was a small shipping port, and its exports were chiefly lead and corn, the lead being mined in Teesdale, &c. In that year (1822) 1200 tons of coal were shipped, but the formation of the Stockton and Darlington Railway afforded the means of bringing the produce of the collieries there, and in 1826 the shipments reached nearly 11,000 tons. Afterwards the Stockton and Middlesborough Railway was constructed, and the port made rapid advances in coal shipping and general imports and exports; but the greatness of the place is, of course, mainly due to the discovery of thin great beds of iron ore, and the establishment of the huge manufactories of Bolckow and Vaughan and others for the smelting of the ore, and also latterly other works are making all kinds of finished iron and also steel.

Various statements have been made as to the discovery of the Cleveland iron ore, but there is no doubt that the Romans discovered some of thin beds, and worked them to some extent, and also smelted the ore; thin clay bands, with ironstone nodules, and also charcoal and slag, have been found at various points in Belsdale, Bransdale, Rosedale, furnace-house in Fryupdale, Reevaux Abbey, &c. In 1811 iron ore was sent from Cleveland to the Tyne to be tested, but it was not approved of. The main bed of ironstone, the discovery and working of which has produced such astounding results in this district, was found by Mr. Vaughan and Mr. John Maley on June 8, 1850. The discovery was made in a quarry on the grounds of Sir J. H. Lowther, and the bed was 16 ft. in thickness. No time was lost in proving and working this bed, and progress was rapidly made in the iron manufacture by Mr. Vaughan and partners. In 1868 the make of pig-iron in the Cleveland district was 1,233,418 tons, and in 1880 it was 1,991,032 tons. The output of iron ore in 1880 was 6,441,783 tons.

REPORT FROM CORNWALL.

Oct. 13.—There is very little to note in the course of mining affairs since our last report, the substantial conditions remaining practically unchanged. There has been considerable excitement and uncertainty in the share markets—not, however, by any means approaching what could be called instability; and this was naturally succeeded by comparative quiescence. Under the general circumstances of business all this, however, is no more than is natural, and in no way militates against the substantial and satisfactory character of our position and prospects.

Thanks to the liberality of Mr. Basset, Camborne has long enjoyed the advantage of a public laboratory, which has had a very important influence on the success of the scientific teaching given in that town. Redruth wants to be no worse off, and the matter has been taken up by the Redruth Literary Institution. Dr. Hudson wisely suggests that the movement shall be made a town matter, and that the proposed building shall be of such a size and character as to secure the Government aid given from South Kensington. If it can be carried out, and Redruth has plenty of public spirit, this will be a most important step.

The final decision has now been made with regard to the stone to be employed in Truro Cathedral, and it is decidedly satisfactory, as we stated it would be, to those interested in the use of local material, though, of course, it might have gone somewhat further. However, no objection can now be raised on the score of durability, and the great mass of the Cornish cathedral will be of Cornish stone. In the exterior walling Carnsew granite is to be employed, and for the interior St. Stephen's stone—both excellent stones in their several ways; indeed, about the best the county yields, all points—colour, texture, and working—considered. The exterior dressings are to be of the closest texture, hardest, and most durable of the Bath oolites, the Box ground stone, and the interior of the Bath stone of the ordinary kind. This arrangement will give sufficient contrast and tone; and as we know it is made under the skilled advice of Mr. Warington Smyth we may have the fullest confidence that every point has been thoroughly considered.

REPORT FROM NORTH WALES, SALOP, AND CARDIGAN.

Oct. 13.—The question of the pollution of streams by mines is again coming to the forefront in North Wales. The Government Inspector of Fisheries lays down the rule that either a stream is polluted or it is not. True, but two questions arise at this point. First, is not every stream polluted by floods, and is the simple fact of the discolouration of a stream by the dissolvent rocky matter a greater matter than this? Can it be expected that, even supposing every particle of metallic mineral is taken out of a mine, this discolouration by soft rocky matter held in solution or suspension in a stream can be got rid of? Why should water flowing from industrial works of any kind be expected to be clearer than flood water? Secondly, is the profitable working of the bulk of mines, and the prosecution of other great industries, compatible in this limited county with clear, pelucid streams unexceptionally favourable to fish life? In other words, can landowners eat their cake in the shape of rents and royalties and have it in the shape of game, fish, and sports, which really are the employments and prerogatives of a wild country. Our industries are becoming more heavily handicapped every year, and chiefly in the interests of those who cry out for fair trade. Sanitorialists, sporting men, and men with other crotchets, must take care they do not, by multiplying restrictions, drive the trade out of the county.

The thrift of the slate quarrymen has been exemplified recently in the number of men who have put in their claim as voters in Carnarvonshire, as owners of the houses they live in. The appearance of the homes, too, in the slate district strikes a passer-by as good, clean, and tasty. If I were asked by the quarrymen's Union for my advice I would say do not invest your funds in co-operative slate quarrying. This industry, above all others, demands a close, personal supervision by the chief owner.

A spurt has been given to lead mining in Shropshire by the success of the Roman Gravels, and several ventures are being pushed forward. Both in Shropshire and North Wales the ironworks and collieries are now fairly busy.

REPORT FROM NORTH AND SOUTH STAFFORDSHIRE.

Oct. 12.—The Quarterly Meetings have been held this week. Yesterday in Wolverhampton Earl Dudley's furnace coal remained at 10s. per ton, but a further 1s. advance is anticipated on November 1, since the colliers are so persistent in demanding higher wages. Ordinary forge coal was 7s. 6d. to 9s., according to the district where mined and the quality of the seams. North Staffordshire ironstone ranged between 10s. and 15s. per ton, delivered into South Staffordshire, and South Staffordshire sorts varied from 10s. to 18s. These prices are an advance of 1s. per ton compared with a fortnight or so ago. Northampton stone was about 6s. to 6s. 3d. Yorkshire and South Wales washed cokes were 15s. 6d. to 16s., which is likewise 1s. per ton advance. Shropshire all-mine pigs were unaltered at the 5s. advance recently declared, and Staffordshire sorts at about the 2s. 6d. rise. Hot-blast all-mines of Shropshire were 3*l.* 5s., and Staffordshire 3*l.* 7s. 6d. to 3*l.* 10s. Cinder pigs were 45s. Hematites were 72s. 6d. to 75s., an advance of 10s. on the July Quarterly Meetings. The marked iron houses made no additional advance. Bars were, therefore, 8*l.* 2s. 6d. to 7*l.* 10s., and sheets and plates in proportion. Common bars and sheets were very strong.

To-day's gathering in Birmingham confirmed Wolverhampton meeting. No alteration in crucial prices occurred, but numerous traders believed that early in November Earl Dudley's coal will be further advanced 1s., all mine pigs 5s. to 2s. 6d., and marked bars, sheets, and plates, 10s. Experienced producers hoped that this would not take place, fearing to retard the improved demand. Iron tubes further reduced in gross discount 2½ per cent

The price of limestone at the Earl of Dudley's quarries on and after the 13th inst. will be—Grey crystaline for blast-furnace purposes, 4s.; blue or thick red for agricultural and masonry purposes, 3s. 9d. per ton, of 2240 lbs., subject to alteration without notice. The allowance for the present is to be 1 ton in 20. This is an advance of about 6d. per ton.

Colliers' delegates from North and South Staffordshire, Cannock Chase, Salop, and East Worcestershire, at an adjourned mass meeting in Wolverhampton, on Tuesday, with one accord complained of the lowness of wages, and expressed a determination to get them advanced. The North Staffordshire men were reported as being fully prepared to strike, in order to obtain the 10 per cent. advance they were seeking. The South Staffordshire and East Worcestershire men were announced as very dissatisfied with the amount of the late rise, and as expecting another advance of 1½d. per day in the Thin coal seams and 3d. per day in the Thick coal seams shortly. The Cannock Chase collieries were officially stated to have given notice for an advance of 3d. per day, making their wages 2s. 6d. The Salop delegates said their constituents were disappointed in not having yet got a rise, and they should expect one very soon. As to the sliding scale now existing in the South Staffordshire trade a resolution was passed, requesting representative masters to meet representative men, with a view to discussing its amendment in the men's interests.

SELF-GENERATING GAS-ENGINE ARRANGEMENT.—An ingenious portable machine bearing the above title has been patented by Mr. H. L. Müller, of Birmingham. It is a gasholder and gas-engine combined, the engine being placed upon the top of the gasholder, which measures 5 ft. by 3 ft. The engine drives, by means of a band, a countershaft, and at the end of this is a disc which works an air-pump, by which air is forced along a pipe fixed outside the gasholder to a regulator which is adjustable in order to give different pressures. Passing the regulator, the air enters a producer, where, mixing with gasoline, it forms gas in a manner similar to that of the Alpha machines. The gas generated is used to drive the engine, and the apparatus will deliver gas up to 8 or 10 in. pressure into gasholders of the ordinary description. A gasholder of the size stated is calculated to supply sufficient gas for 500 lights, and is fitted with a one-eighth horse-power engine, which consumes about a 300th part of the gas which it produces. The apparata are made of various sizes, and can be adapted to the lighting of railway trains, while the larger ones are suitable for lighting villages.

Terms have been made with the agents of the Duke of Cleveland by Messrs. Hill, mining engineers, Wednesfield, for acquiring his extensive Ashmore Park Colliery, Wednesfield, and operations will be commenced without delay.

The Batman's Hill Ironworks, Bilston, near Wolverhampton, formerly owned by Mr. Rose, have been sold to the Albion Sheet Iron Company, West Bromwich, for 10,000*l.*

TRADE IN SOUTH WALES.

Oct. 13.—The steam coal trade of South Wales is very active at the present moment, the shipments from Cardiff, Newport, and Swansea showing excellent totals, with a prospect of increased activity as the winter approaches. The amount sent away last week from Cardiff was 138,223 tons. The totals for the first nine months of the present year were: Cardiff, 4,118,933 tons; Newport, 858,051 tons; Swansea, 590,031 tons; Llanelly, 47,901 tons. The amount shipped coastwise in the month of September was: Cardiff, 90,414 tons; Newport, 87,229 tons; Swansea, 65,432 tons; Llanelly, 14,451 tons. The want of dock accommodation, so long felt at Cardiff, will probably be remedied shortly, as the Marquis of Bute has determined to make the Roath Dock at a cost of 500,000*l.* upon certain contingent arrangements being agreed upon by the shippers with regard to the price of tipping, and as the new docks at Swansea will be opened on the 18th inst. by the Prince of Wales, there is every probability that the wants of the shippers will be met when these new docks are in full operation. The iron trade of South Wales gives indications of a good winter trade, as orders are plentiful and prices are rising. The amount sent away from the principal South Wales ports for the first nine months of the present year was: Newport, 146,488 tons; Cardiff, 99,901 tons; Swansea, 6856. Patent fuel for the same period: Swansea, 147,521 tons; Cardiff, 90,199 tons. The tin-plate trade shows no signs of increased activity, although orders are not scarce. Prices are at present unremunerative.

THE TYR ADAM COLLIERY.—At the Royal Hotel, on Saturday, Messrs. Tribe, Clarke, and Co. (instructed by the trustee of Mr. Daniel Price, and Messrs. Price and Evans, now in liquidation) offered for sale by auction the farmhouse and farm-buildings, together with 60a. 2r. 23p. of arable and pasture land, called Tyr Adam Isaf, otherwise Pentreporth, in the parish of Gelligaer; and the particulars set forth that underneath the property valuable coal seams exist, that a colliery has been established thereon, known as the Tyr Adam Colliery, which has been worked for some years past with much success. Along with this there was also offered the colliery plant, tools, articles, &c., consisting of about 80 colliery trams, and upwards of 220 tons of tram-plates, smiths and colliery tools, Pooley's weighing machine, &c. The auctioneer announced that there was a mortgage of 4000*l.* on the property, but said that he believed the mortgagee was willing to leave the money where it was. The lower seam of coal was, said the auctioneer, still there, and the royalty was 1s. per ton on large coal, 4d. per ton on small coal, 4d. per ton on fire-clay, and 1s. per ton on iron-stone—the ton to be of 2520 lbs. Though there was a fair attendance there was only one bid, 4500*l.*, and the property was withdrawn.

An important discussion as to the use or non-use of naked lights in collieries took place at an inquest at Dowlais, on Thursday, between Mr. T. E. Wales (Inspector of Mines for South Wales), Mr. T. Williams (Deputy-Coroner), and Mr. Truran (General Manager of the Dowlais Company's Collieries). It has been customary to refer with pride to the splendid ventilating system carried out at Dowlais, permitting of naked lights being used in the whole of the collieries. Although very free from any kind of explosion for years past, yet three explosions, of a small nature it is true, have occurred during the present year, in each of which life has been lost, and several persons have been injured. This caused Mr. Wales to repeat what he himself, as well as his deputy, Mr. Rees, has maintained on former occasions, that safety lamps should be used in every colliery without exception, if simply as a matter of pure precaution. Mr. Truran endeavoured to support the very striking statement that all the great explosions took place in collieries where safety lamps were used, but Mr. Wales would not allow such an argument to go forth to the public without a prompt explanation, and stated that the reason why what Mr. Truran had asserted was apparently correct was because the use of safety lamps was almost general. On the other hand, he made the assertion that the only explosions that had occurred in mines during the present year—and there had been several—had been in collieries where naked lights were used. This is no doubt correct, as Mr. Wales must be regarded as an undoubted authority upon this subject. The discussion will be regarded with interest just now, especially as we have to record another fatal accident at the Dowlais Company's pit at Vochriw.

— *South Wales Daily News.*

A TIN QUARRY.—The prospectus of the Royalton Tin Mine has been issued, short particulars of which appear in another column. This company has been got together for the purpose of working an immense deposit of tin ground on the brow of the Castle-an-Dinas Hill, near St. Columb, celebrated for ages by its immense tin streaming works. The tin streaming is clearly traceable to the Royalton Mine, which is consoling to future shareholders. This mine is only down 25 fathoms and already 20,000*l.* worth of tin has been sold, leaving good profits. The mine is highly spoken of in the county and Mr. Geo. Henwood's special report on the property is interesting to read. The capital of the company is 15,000*l.*, in shares of 1*l.* each, and with the paying and improving price of tin Royalton bears a favourable contrast to many new mines with large capital. The purchase money is small, 1000*l.* only in cash and 5000*l.* in shares, which cannot distress, as Mr. Henwood says, "an incalculable and inexhaustible supply of material." The prospectus speaks for itself.

VENTILATING MINES.—According to the invention of Messrs. Knox, Falconer, Burns, and Knox, of Glasgow, a main pipe descends from the surface into the mine, where it branches off into such cavities and workings as may be found to require ventilation for the purpose of collecting the foul air and carrying it to the surface. They make the branch pipes of sufficient size to meet the requirements of the mine in which they are placed, and the main ascension of sufficient size to accommodate the air carried in the various branches, and also to admit of the extension of the workings of the mine and additional branches. In other cases the piping is appropriately fitted to suit the circumstances and operate on the same principle. The valves at the extremities of the piping are automatical, with spiral mercurial tubes set on axes, and so adjusted that they will open and

close according to the temperature, or according as foul air may make its appearance in the mine; also they provide a receiver at every valve for the purpose of more efficiently collecting the light or heated atmosphere. As a motive power they employ a disc of steam driven through a specially constructed apparatus fitted with Venetians for the purpose of forming a vacuum in the ascension pipe, which can only be filled by atmosphere drawn from the mine or place being ventilated, and as the pipes (where more than one) are fitted with automatical valves the lightest atmosphere will always be that which is first removed.

COMPRESSED AIR FOR COAL CUTTING.

At the North Staffordshire Mining Institute meeting, at Stoke-upon-Trent, on Monday, Mr. JOHN BROWN (the President) in the chair, a paper was read by Mr. Ernest Craig, on "Some Experiments made with Compressed Air for bringing down Coal." He said they had disoussed the advantages and disadvantages of gunpowder and wedges as means for bringing down coal; but a new method had within the last few years been discovered which could be applied to the same end, and which he thought would in time, if followed up, successfully compete with the wedge, if not in some cases with gunpowder—the application of air as a blasting agent. He had seen it applied experimentally, and he wished to give them a general impression of the manner in which it was done. The principle to which he wished to draw their attention was the compression of air in a cast-iron cylinder or cartridge until the latter broke, and so suddenly liberated the compressed air that it expanded, and gave practically the same effect as an explosion of gunpowder. The machine which he had seen in operation was known as Reuss', consisting of a drilling or circular cutting machine, a cartridge, and a blasting or air pumping machine. To place the drilling apparatus in position a hole from 8 to 10 in. deep must be made by hand in the face of the coal, and that the leg of the machine was fastened by means of a nut, which being turned wedged some taper keys securely against the side of the hole. The cutting tool was then fixed, and made to revolve, and the boring of the main hole, which could be directed to any angle, was commenced. Behind the cutter there was a double Archimedean screw, which as the depth of the hole increased it was necessary to lengthen, and in preference to having one long screw it was best to keep adding 6 in. lengths till the desired depth was reached, by which means a straighter hole could be drilled than by one long screw. The hole cleared itself of its borings as it advanced by means of the screw. The cartridge was simply a hollow cast-iron cylinder, varying in strength to suit the coal. It was estimated to burst a cartridge ½-in. thickness a pressure of 6700 lbs. per square inch was necessary, and for every additional 1-16th inch in thickness an increase of 1000 lbs. to 1500 lbs. per square inch was required. The blasting or air pumping machine pumped the air into the cartridge. The pumps were of the simplest construction, and the whole machine was worked by two men. The machine was made to run on rails, and would stand about 3 ft. 6. in. height. The connection between the machine and the cartridge was made by means of hydraulic tubing, which had an interval diameter of 1-32nd part of an inch, the whole machine and connections being made capable of standing a pressure of 20,000 lbs. per square inch. Having described the charging of a hole, he said that a sufficient length of hydraulic tubing was connected with the blasting machine, and the latter being placed in a secure position the pumping began. A gauge fixed on the machine showed how the pressure was increasing. With the air a small quantity of water was also pumped into the cartridge to act as a slight check upon the violence of the expansion at the bursting of the cartridge. When the pressure reached about 6700 lbs., the cartridge exploded and the coal was brought down. The explosion was not accompanied by any great noise; the pieces of coal were not thrown any distance. From what he had seen the coal simply fell, and it was not necessary for the machine to be more than half a dozen yards from the face. After the explosion a slight mist was visible floating about in the air, and the place was perceptibly cooled. He gave details taken down by Mr. J. R. Haines when the machine was tried in the Bullhurst seam at the Harecastle Collieries, showing the time taken in boring a hole and exploding a cartridge. A hole 2½ in. in diameter was drilled in the coal 9 in. deep by hand, and the time occupied in fixing the drilling machine was 15 min. The time taken in drilling was 4 min. 15 sec.; time taken in lengthening the drill, 7 min. 58 sec.: 15 min. were then expended in removing the cutting machine, inserting the cartridge, and stemming the hole. It afterwards took 26½ minutes to connect the cartridge to and fix the blasting machine. Two men then commenced to work the machine, in order to fill the cartridge, at 12·26½ P.M., and at 1·11 the pressure was 7600 lbs. when the cartridge exploded on the end about 5 feet.

It was apparent that, with the exception of accidents and delays, the time taken in fixing the cutting machine, boring the hole, and exploding the cartridge would have been 47 min. 13 sec. Allowing 10 min. for stemming the hole and making the connection with the air-pumping machine the time occupied would have been 57 min. He (Mr. Craig) saw the machine experimented with at the Manvers Main Colliery, Yorkshire, and the time taken up was the most successful experiment—from the fixing of the boring machine, to the explosion of the cartridge, when some 15 tons of coal were brought down, was about 35 min. It was in a longwall face, the coal being holed 4 ft. 6 in. under. Mr. Craig added—There is one objection to the use of this machine, which is evident—that while it is travelling from one place to the other to explode a cartridge the roads in that district must be occupied by it, causing thereby in many instances great inconvenience. The chief advantages claimed for this method of blasting are, according to Mr. Reuss—1. Absolute safety to life and limb, there being no necessity to retire from the place while blasting is going on.—2. The coal is brought down in large pieces, realising a higher price in the market than when shattered by powder; there is very little waste.—3. The air is not vitiated at all; on the contrary, it is cooled and purified, and no time is lost in clearing the coals away as soon as brought down.—4. The cost is no greater than getting coals by gunpowder blasting; in many cases it is less. The proper way to work this machine would be, I think, as follows:—The colliers as now would bore the hole, and make everything ready for putting the cartridge in when the machine would be brought round by a man; the fireman would then fix the cartridge, and see all details properly arranged, after which the colliers would assist in the pumping in of the air, but even under these circumstances. Whether general practice will bear out all of the statements above given in favour of the method I am not prepared to state or to contradict; but anything that tends to lessen the danger of coal getting, and, as is here affirmed, does not materially interfere with the cost of production, deserves a fair trial and our best consideration and attention.

A short discussion took place, in the course of which it was stated that the machine in question was fairly portable; but still it was questioned whether it would be suitable for many of the steep mines of North Staffordshire. It was also doubted whether it could be worked to advantage commercially. It was stated with reference to the particular machine to which attention had been directed that its general trial had been interfered with by a Chancery suit. The paper was ordered to be printed.

ROTATORY DISC ENGINE.—The improved engine invented by Mr. GEO. TEMPLE, of Rotherham, consists of a shaft which is hollow to form the steam passage to convey the steam from the steam pipe to the disc, this hollow shaft or hollow end of the shaft carrying at one end the disc and at the other end an ordinary strap pulley or an ordinary coupling; secondly of a casing in which the shaft rotates, the said casing being connected to the boiler or steam generator and provided with glands, bushes, and packing of ordinary construction in which the shaft rotates, and which prevents the escape of the steam from between the shaft and the casing, the hollow shaft is perforated radially to admit the steam from the casing and steam pipe, and is fitted with a perforated bush or ring to ensure a continuous opening between the steam pipe and hollow shaft, so that the disc can be fed regularly with steam when the engine is at work; thirdly, of a disc perforated from the circumference to the hollow axis in such a manner as to get the maximum effect from the issuing therefrom of the steam, the disc is secured to or forms part of the hollow shaft above described, and is placed within the boiler or steam generator below the level of the surface of the water therein. In carrying into practical use the invention described, steam is generated in the boiler which is conveyed to the casing of the disc engine, thence through the hollow shaft to the disc, and issues through the holes in the circumferential face thereof, the steam striking the water tangentially or otherwise, and causing the disc shaft and strap pulley or coupling to rotate.

FOREIGN MINING AND METALLURGY.

The French Iron trade exhibits a general improvement. Transactions are important, and quotations show a marked upward tendency. In the Haute-Marne coke-made iron has nearly attained a quotation of 8*l.* per ton, while mixed iron has made 8*l.* 12s. to 8*l.* 16s. per ton. Casting pig has made 3*l.* to 3*l.* 12s. per ton in the Haute-Marne, or about the same price as English pig. In the Nord more than 80,000 tons of iron have been dealt in during the last few days at well sustained prices. At Paris merchants' iron has been currently dealt in at 7*l.* 16s. per ton. In the Longwy group refining pig has been quoted at 2*l.* 13s. per ton on trucks at the works. During the last three years seven new steelworks have been organised in France, and doubts are beginning to be expressed whether the production of steel is not likely to be overdone in consequence among the French. During the last few days the German iron markets have shown a good deal of animation; raw iron especially has been in good demand, and prices have been moving upwards. As regards finished iron the demand has continued good, and in many cases buyers have been compelled to comply with the demands of producers. We cannot say as much of plates, the quotations for which have not varied. The Rodange Blast Furnaces Company report that its operations for 1880-1 were attended with a loss of 3969*l.*

The Belgian iron trade continues to present a favourable appearance. Numerous and pressing orders arrive, and prices materially feel the influence of this state of affairs. Girders have been especially sought after, and in order to secure early deliveries slightly higher rates have been paid. This circumstance is rendered all the more significant by the fact that the building season is now well advanced. Plates have also been supported extremely well in Belgium, and high rates have been conceded, in consequence of some French orders having come to hand. Pig has been slightly weaker in Belgium, notwithstanding a recent rise in warrants at Glasgow, and notwithstanding also a better tone on the Luxembourg market. The Belgian steelworks continue extremely well employed; their production is engaged for a long time in advance, and the new works which are about to commence operation in Belgium appear likely to be inaugurated under eminently favourable auspices. A great many Belgian industrial companies are about to report progress to their shareholders for their past financial years. The results which they will have to communicate are generally satisfactory, especially in the case of those companies which possess establishments in France. Sensibly larger dividends will be generally distributed for 1880-81 than those which were paid for 1879-80. Contracts are about to be let at Ostend for two screw steam tugs with iron hulls for the Belgian navy.

The condition of the Belgian coal trade continues generally satisfactory. It is true that prices have not advanced, but an encouraging firmness prevails. A strike which had attracted some attention has terminated, and the production has been carried to its utmost possible development. There are still complaints, however, of a scarcity of rolling stock upon the Belgian State railways, although the management exhibits every disposition to oblige. It appears from a statement issued by the Belgian Minister of Public Works that in the week ending October 2 there were 1785 more coal trucks in use upon the Belgian State lines than in the corresponding week of 1880. This is all very well as far as it goes, but it is not sufficient. Industrials require from 2500 to 3000 more trucks, and the administration of the Belgian State lines must still endeavour to keep pace with the requirements of its customers. Quotations have experienced scarcely any change upon the Belgian coal markets; coke and industrial coal have, however, exhibited rather more firmness. The intelligence received from the French coal basins of the Nord and Pas-de-Calais is relatively satisfactory; it would be still more encouraging but for a scarcity of railway rolling stock as in Belgium. This scarcity of rolling stock has, of course, a tendency to harden freights for the conveyance of coal by water. Prices of coal have generally remained very firm in France. Upon the German coal markets quotations have remained very firm, and have shown an upward tendency. In consequence of the increased production of pig in Germany coke has been sensibly firmer.

Original Correspondence.

THE GREAT CHILE GOLD LODE AND THE GOLD FIELDS OF GUAYANA.

SIR,—This great champion lode, so rich in gold, situate in the Caratal gold fields of Guayana, is formed by a junction of at least four veins. The lode is well illustrated by Dr. C. Le Neve Foster, B.A., D.Sc., F.G.S., Her Majesty's Inspector of Metalliferous Mines, in a paper read before the Royal Geographical Society in June, 1869, after he had made an inspection of the country.

With a trifling exception this great consolidated lode, and the rich mines opened on it, are comprised in the Mocupia estates recently acquired by the Chile Gold Mining Company (Limited). The exact length of the lode in this company's property is 6900 ft., or more than a mile and a quarter, and its depth on the underlie of the lode is about 6000 ft. The width of the lode varies from 2 to 8 ft., but taking an average of 4 ft. the gold quartz contained in the Chile Gold Mining Company's property would amount to upwards of 12,000,000 tons, and assuming that they work their mines as extensively as they contemplate, and crush 41,400 tons of quartz per annum, it will take 300 years to exhaust their mines. The quartz in the bottom of the mines is reported to be yielding 5 ozs. of gold per ton.

The trifling exception above referred to is a portion of the outcrop of the vein, 400 ft. in length, owned by the Potosi Company, and situated between the Chile Gold Mining Company's engine and their old shafts. This ground the Potosi Company can only work for a short time, estimated by Mr. Symons, their superintendent, at two years, when the vein passes wholly into the Chile Gold Mining Company's Mocupia estate; in fact, he describes it as "only a small portion of the vein hemmed in on all sides by Mocupia." The richness of the vein even near the surface may be gathered from the fact that this small spot has already yielded upwards of 300,000*l.* worth of gold to the Potosi proprietors.

From the above remarks it will be seen that there is a great future for the Chile Gold Mining Company (Limited), and the Chile and Callao Mines are undoubtedly the gems of Caratal district. Guayana is, however, a great province, nearly as large as France, and most of it auriferous. There are scores—nay, probably hundreds—of mines in Guayana as rich, and even richer, than either Chile or Callao, and all that is needed is railway communication to open them up and produce fabulous wealth. A railway is now about to be surveyed and constructed, and from the high position and well known energy and ability of those who have undertaken it the line will, probably, be constructed in about a year, when, in addition to opening up new gold fields, the working expenses of the existing companies will be reduced to one-fourth of the amount now being incurred, and their profits increased accordingly. CIVIL AND MINING ENGINEER.

[For remainder of Original Correspondence see this day's Supplement.]

Meetings of Public Companies.

MONA CONSOLS COPPER COMPANY.

The statutory meeting was held at the Company's offices, Great Winchester-street, on Monday,—Mr. ROBINS in the chair.

Mr. W. BATTYE (the Secretary) read the notice convening the meeting.

The CHAIRMAN explained that it was the statutory meeting, and that the Company was registered in June, and almost immediately afterwards commenced the works. A correspondence took place with Captain Mitchell with reference to the best mode of operation, and ultimately the directors, with their secretary, visited the mine, and came to the conclusion that they had a valuable property, that the appearance at surface justified the expectation of good results at a shallow depth, and that they were going to open up something for their neighbours—that, in all probability, the owners of the soil would want them, or somebody else, to give them a good lump of money for one of these days. They, therefore, resolved to see whether they could not negociate for the purchase of the adjoining property at once, so as to make their property more extensive and valuable. He was glad to say that they had secured it for 250*l.* in cash, and 1000*l.* in fully paid-up shares. This can be worked most advantageously in connection with the former sett. The operatfons have been commenced by putting up a horse-whim to get the water out, and with the view of opening up a lode at something like 24 or 25 fm. in depth, where it shows such indications as to justify the expectation of making a very fine property of it. Captain Mitchell, who has the supervision of that work, was present. He is the manager of the Parys Mountain Mine, and has there shown great experience and ability. He (the Chairman) did not think they could be in better hands. All the directors present were much pleased with the property, and they looked forward to making it valuable to every shareholder at a moderate outlay. Some of the specimens of ore brought up by Captain Mitchell were on the table, and they brought up other samples themselves which they broke from the ground almost close to the surface. The lode is strong in appearance and embedded in valuable clay-slate for the production of minerals, and as that district is well known to be productive at a shallow depth there is every probability that they will have similar results to what have been arrived at in other mines in the neighbourhood. The samples were from 2 or 3 fms. below the surface, and there could be nothing finer in the shape of spar and copper, as far as indications and value are concerned. He only congratulated the shareholders on having a very good property. Work is being pushed on, all the surface erections are being proceeded with, and it is hoped to have them all complete before the winter weather sets in.

Capt. MITCHELL said the new mine they had acquired was Tygwyn, and that some of the ore they had seen had come out of it. They had erected a horse-whim there, and in the Mona Consols, on the middle of the lode, and commenced making a trial by sinking from the surface, and there are samples secured from a depth of about 5 ft. The lode as seen at surface varies from 4 ft. to 15 ft. wide. The copper is scattered through the stone, and the quality is very good. He supposed this copper, as separated from the stone, would produce 30 per cent.; take it altogether, 7 per cent as it is. He was pleased they had taken the Tygwyn Mine. Taking the two propertfes together they had a nice sett, and he was of opinion that before long it would make a good return. The deepest place operated upon was only about 24 yards, and several good parcels of copper ore have been got from there. He had recently been told by one of the old miners that he was one of a party who got out 40 tons of copper ore in a very short time, and he said, "When the water is drawn out of the old workings we shall have the pleasure of seeing the very extensive space made in getting that copper." The best plan would be to sink the mine deeper, and then extend the levels once more. After awhile they would be able to ascertain the best position on which to have a proper engine-shaft sunk for the proper working of the mine. Most likely the site will be selected between the virgin lode and the middle lode. All the lodes are dipping towards the north. They could sink a new shaft by and by, which will take the incline of the lode at a depth of 40 fms., and thus open up a valuable property. The indications are very good. Operations have been commenced, and indications are even better now than when they were commenced a short time ago, and the only things required are a little capital and a little patience, and they would have a very valuable property.

The CHAIRMAN was pleased with the way in which Capt. Mitchell proposes to carry out the works. In the preliminaries of all these mines the great object should be to go quietly on till you find the best point at which to sink the engine-shaft. The property is 400 fms. in length upon the lodes, and it is most desirable to fix the shaft at a point which will command them all.

Mr. WREEN said that Capt. Mitchell did not tell them anything about the water-power. Some years ago the old proprietors worked here by water-power, but all their works have in the interval been destroyed. By using water-power there will be a great saving in the cost of coal.

The CHAIRMAN replied that the water-power would be kept on during the present time, and it will also do the pumping. Their great saving over other mines will be in coal.

Mr. MITCHELL said that the stream of water is ample both in summer and winter. In summer it is rather dry, but is sufficient for dressing purposes, and in winter it will work a water-wheel.

The SECRETARY estimated that 3000*l.* will make a very important impression on the property. Capt. Mitchell had broken fine stones from the backs of the lodes, and it is naturally expected that as the mine is deepened the ore ground will improve, and the character of the lode with it, and that the ore will become more massive in depth.

Capt. MITCHELL said that the deeper they went the more massive the ore would become. He fancied that a little deeper they would do more than pay expenses

Mr. HORACE J. TAYLOR was so pleased with the appearance of the mine that on returning from his visit he bought some shares. He wished them every success, and he really thought the mine would turn out well. He was willing to take more shares if they could be obtained.

Mr. WRENN, in proposing a vote of thanks to the Chairman and directors, said you have heard that we are only at the shallow depth of 24 yards, so that we do not know what we may get when we go deeper. I have visited the property three times, and was very much struck with the strength exhibited by the backs of the lodes, and also with the fact that its width was from 12 to 15 ft. This clearly shows that there is every indication of making as grand a mine, although not on so large a scale, as either the Mona or the Parys Mountain. We have heard what Capt. Mitchell has done with regard to the workings. He proposes to go deeper, but I should have thought for the time being he would have taken (as they have done in the adjoining mines) the crust off and worked by open-cast. All the money from mines in this district has been made from shallow depths, and with an open-cast we might speedily realise handsome profits, and make our shares as valuable as the shares of any mine in the district. We have a large tract of virgin ground, and we have a good practical man at our helm, who will do everything he can to facilitate the advance of the property, and likewise to carry out the views of the shareholders. I know that this is a great and valuable property, and that it only requires to be known in order to be thoroughly appreciated by the public. Some time ago Capt. Roberts went over the property with Capt. Mitchell, and taking a view of the whole of the sett, he thought 3000*l.* would be sufficient to develope it. I think we shall soon show a dividend. I have great pleasure in proposing a vote of thanks to the Chairman and directors for their kindness to-day.—Mr. TAYLOR seconded the motion, which was carried unanimously, and several other votes having been also carried and responded to, the proceedings terminated.

POTOSI GOLD MINING COMPANY.—An extraordinary general meeting of shareholders was held at the City Terminus Hotel, Cannon-street, yesterday, Mr. E. L. J. Ridsdale in the chair. After a long discussion a committee was appointed to confer with the directors and report to the shareholders upon the present position of the company. The committee elected was as follows:—Sir Thomas White, Messrs. Charles Levy, Matthews, Dunlop, Higgins, Keeble, and Richards. A full report of the proceedings will appear in next week's *Mining Journal*.

[For remainder of Meetings, see to-day's Supplement.]

FOREIGN MINES.

LAST CHANCE.—The directors have received the following telegram from their agent at Salt Lake: "Shipping ore. Prospects favourable."

LA PLATA.—Cablegram: The net profit for the month of September is $16,480, equal to 3433*l.* 6s. 8d.

PITANGUI GOLD.—Cable message from the agents in Rio de Janeiro, dated Oct. 10, advise the produce obtained for the month of September as being 400 oits. of gold. The value of this produce would amount, at 8s. 6d. per oit., to 170*l.* sterling.

SIERRA BUTTES GOLD.—Result of the working at the Sierra Buttes and Plumas Eureka Mines for September:—Sierra Buttes: Total receipts, $28,582; total working expenses, $18,510; outlay on improvements, $1837=$20,347.—Plumas Eureka: Total receipts, $47,202; total working expenses, $22,302; outlay on improvements, $4588=$26,890.

EUREKA (NEVADA) SILVER.—Report on mines for the week ended Sept. 19: Bald Eagle: The 150 ft. level is now cleared out to a point 109 ft. from the shaft. Drifting will be commenced in a northerly direction under the old stopes from this level in a few days. The 150 ft. west drift from the incline is in more favourable ground for drifting; progress this week, 14 ft.; total, 24 ft. from the shaft. The main incline is repaired and timbered to a point 75 ft. below the 150 ft. level.—Williamsburg: The ore in the stope between the first and second levels is somewhat smaller, but are still producing considerable ore. Have about 20 tons at the mine ready for shipment.—P.S.: In addition to the above the superintendent reports as follows: Work has been started on the Eagles, and the machinery works very smoothly; a very cheap and effective piece of machinery. I hope we shall strike some ore soon, the ground looks very encouraging.

CHONTALES.—William White, Sept. 5: Consuelo Mine: We have driven the main level east 17 varas. We have driven No. 2 level east 18 varas, and west 23 varas. We have risen in new ventilation rise 37 varas, and holed to surface The lode in this rise is carried north with the hill, as shown in the section. Total quartz raised, 425 cars, or 310 tons, worth on an average 6½ dwts. per ton. The above points of operation are now looking well, and continue to give satisfactory results.—Estrella Mine: Here during the past month we have stoped from the back of the main level 180 varas, which produced 400 tons of quartz, worth on an average 2½ dwts. per ton. This mine is worked up to the boundary, and all operations here are now suspended.—San Benito Mine: Since the commencement of work in this sett the main level has been driven 7 varas west from Estrella; the lode in the present end is 4 ft. wide, producing quartz for the stamps, and showing every indication of an improvement shortly. Total quartz treated at the stamps during the past month, 900 tons, which produced 187 ozs., or an average of 4 dwts. 4 grs. per ton; value of the gold, 506*l.*; cost at the mines for the month of August, 526*l.*: loss, 20*l.*

CANADIAN COPPER AND SULPHUR.—F. Bennetts, Sept. 30: At the Hertford Mine, No. 5 shaft, the vein in the shallow level east, as well as in the winze sinking under the 40 east, maintains its size, and produces ore of good grade. The vein in the stopes is looking very well, and from the increased facilities we have of working these stopes our output of ores is increasing. At No. 1 shaft the ores obtained from the vein are of higher grade that the average of No. 5 ores; and we are in a position to increase the output from this part of the mine also. At the Acton Mine there is an improvement in the quantity of ores in the black shale east of No. 5 shaft at the 10 fm. level. At the Bolton Mine, in the south shaft sinking under the 10, there is an increase in the mundic contained in the vein. At the St. Francis Mine, the the vein in the winze sinking under the adit east of main shaft is not so good as it was at the time of last report. The total quantity of ores sent to the smelting works for September is not as yet made up, but will be, I think, from 350 to 400 tons. At the Capelton works the ore burners are working very nicely, and are turning out the ores well roasted and in good quantities.

ORGANOS.—J. G. Green, Aug. 20: In future the monthly reports will be forwarded the 20th of each month direct to Honda by our own mail, so as to be in time for the English mail leaving on the 1st of each month; I send this, therefore, as a supplementary report. Good progress has been made since writing you on the 1st both in Buena Ventura and Esperanza levels. The vein in the sole of the former is rich for gold, but the roof cannot be examined in consequence of dead stuff. I enclose herewith results of assays of veinstuff from this level; they are very encouraging. The sawyers are making good progress preparing timber, and I have let 20 miners' cottages to build, as previously mentioned, for the sum of $640, and they are to be completed in 12 weeks from this date. The superintendent's house is incomplete, awaiting timber; but I hope to have it finished before the rainy season sets in. There is a good force of men employed on the road and on the portrero. Six mule loads of machinery, &c., have been delivered on the mine, and I expect all will be delivered in Aipe by the end of September. I have rented a good house in Aipe close to the port as a deposit for same at 40 reales per month. It will answer also to keep the mules and drivers, and so save expenses. Accounts by next mail. Assay results of specimens received at Frias from Organos as follows:—No. 3, Marked Quartz: Silver, 4 ozs. per ton of ore; gold, 5 ozs. 5 dwts. per ton of ore.—No. 4, Marked Gossan: Silver, 1 oz. 16 dwts. per ton of ore; gold, 2 ozs. 16 dwts. per ton of ore. The above specimens are a fair average of the bulk of the Esperanza vein at the Buena Ventura level; they were taken indiscriminately from a pile of stuff.

EBERHARDT.—Statement of progress for week ending Sept. 17: 6000 ft. Drift West: Feet run to Sept. 10, 709 ft.; run for the week ending Sept. 17, 31 ft.; total distance run to Sept. 17, 740 ft.; run for the month of September, 69 ft.—2000 ft. Drift East: Feet run to Sept. 10, 98 ft.; run for the week ending Sept. 17, 8 ft.; total distance run to Sept. 17, 106 1 ft.; run for the month of September, 22 ft.,—Upraise from 2000 ft. Drift East: Feet run to Sept. 10, 19 ft.; run for week ending Sept. 17, 13 ft.; total distance run to Sept. 17, 32 ft.; for month of September, 32 ft.—Remarks: In the 6000 ft. west the face is still in lime, but showing a change in its character, and looking more favourable.—Upraise from 2000 ft. Drift East: This work has now connected the lower and upper drifts. In the upper drift, at a point near the junction with the upraise, there is some quartz or low grade ore, and I have four men commenced on it, running in an easterly direction, and I intend to follow it, and any other stringers of quartz or ore that we may find in any direction they may lead, with the hope of opening into a body larger and better.

NOUVEAU MONDE.—Advices have been received from Mr. Anthony, dated Nacupai Venezuela, Sept. 3. A detailed account of the 10 concessions is given by Mr. Anthony. Several of them are densely covered with timber trees fit for mining purposes, and wood fit for fuel, and are believed to contain valuable mineral lodes, but which have not yet been worked. The concessions 7, 8, and 9, form a group of themselves, entirely distinct from the rest of the company's property, and could most advantageously be developed as a distinct concern. Nos. 7 and 8 are heavily timbered with fine large timber. No. 9 is bounded on the west by Potosi and Chile, whose lode enters this concession at the new shaft of the last-named mine, and that, as its apparent strike is somewhat to the north to east, it heads more to the centre of the concessions as it goes east. Its underlie is towards the south, and it is estimated by Mr. Anthony that it will not pass out of this concession at a less depth than from 500 to 600 ft., on the average length of 1000 metres. The company's mines of Corina Nacupai, with the mill and the pumping and hoisting machinery, are in the concessions No. 1 to 2. The main lodes running through their entire length. In the Corina a great deal of work was formerly done, which has left a quantity of backs above the water-level, on which Mr. Anthony is now operating, and with the expectation of getting a considerable quantity of quartz pending the arrival of the pumps by which the Nacupai Mine is to be drained. Stamping has been started with two batteries of 5 stamps each, and a third battery of 5 stamps is intended soon to be added. The results of this stamping will be communicated as soon as they can be ascertained. The books of the mill show that the quartz formerly treated from the Corina Mine gave 1½ oz. per ton, and that of Nacupai 3 ozs.

ENGLISH BANK OF SPAIN.—At a time when the eyes of the different nations of the Continent are turned to Spain, not only on account of the recent ceremonious investiture of the King of that country (by the Special Envoy of our Queen) with the Order of the Garter, but also by reason of the great efforts being made by Spain to place herself well with holders of Spanish stock, the directors of the English Bank of Spain have wisely selected the month of October to bring out what they hope will be one of the best investments of the year. Not only have the directors contracted to purchase a valuable concession, that of the Banco Territorial de España, on favourable terms, but they have obtained the names of all the leaders of the different political sections on the Local Advising Board. They consider that they have also secured in Senor Comendador a first-class practical manager at Madrid. There are claimed to be peculiar facilities given to the bank, and taking all the different advantages into account the directors anticipate a high rate of interest. It is remarked that if any argument be needed in favour of the Bank it may be mentioned that one only of the Spanish Colonies has already agreed to pay one half of the amount agreed to be paid for the concession for the privilege of establishing a branch bank there.

SALES OF COPPER ORES.

COPPER ORES SOLD AT THE CORNWALL TICKETINGS, FOR THE QUARTER ENDED SEPTEMBER 30, 1881.

Mines.	Tons.	Amount.
Mellanear	1746	£5413 4 0
West Tolgus	293	1469 1 6
East Pool	182	438 10 0
South Crofty	33	108 18 0
O'd's Precipitate	1	9 5 6
Devon Great Consols	2483	4547 0 6
South Caradon	1620	7769 16 0
Gunnislake (Clitters)	829	5394 9 6
Marke Valley	590	1583 16 6
Glasgow Caradon	340	1197 14 0
Bedford United	212	605 2 0
East Crebor	67	195 19 6
New Cook's Kitchen	92	418 18 0
West Seton	57	246 13 6
Great Crinnis	45	211 10 0
Botallack	41	221 1 6
Wheal Comford	23	64 19 6
Wheal Crebor	470	1332 12 6
South Devon United	250	823 9 0
Phœnix	30	148 10 0
Levant	175	1178 1 0
Wheal Jewell	146	480 0 0
East Uny	12	41 8 0
West Chradon	60	207 0 0
Trugo	40	132 0 0
East Caradon	25	115 0 0
Mid-Devon	24	144 12 0

COMPANIES BY WHOM THE ORES WERE PURCHASED.

Vivian and Sons	2358	£7,905 3 2
P. Grenfell and Sons	1757	7,518 14 0
Nevill, Druce, and Co.	1800	5,620 0 2
Williams, Foster, and Co.	2296	8,043 13 5
Mason and Elkington	715	2,534 12 0
Charles Lambert and Co.	920	2,876 19 3
Total	9846	£34,499 2 0

COPPER ORES SOLD AT THE SWANSEA TICKETINGS, FOR THE QUARTER ENDING SEPTEMBER 30, 1881.

Mines.	Tons.	Amount.
BRITISH.		
Berehaven	883	£4,056 9 6
Tan-y-Bwlch	68	631 11 6
Cronebane	12	365 7 0
Tigrony	15	313 3 0
Cambrian	17	84 15 0
Total	995	£5,451 4 0
COLONIAL.		
Betts Cove	2050	£7,212 1 6
Union	976	5,002 7 0
West Australian	7	70 10 6
Total	3033	£12,284 19 0
FOREIGN.		
Spanish	234	£2,316 18 0
Virneberg	135	907 15 0
Italian	113	893 5 0
Mostardeira	157	753 15 6
Carracedo	97	574 13 6
Sobral	5	38 17 6
Total	741	£5,485 4 6
RECAPITULATION.		
British	995	£ 5,451 4 0
Colonial	3033	12,284 19 0
Foreign	741	5,485 4 6
Sundries	576	909 4 6
Total	5345	£24,130 12 0

COMPANIES BY WHOM THE ORES WERE PURCHASED.

	Tons.	Amount.
Copper Miners' Company	80	£ 408 0 0
P. Grenfell and Sons	837	2,424 12 9
Nevill, Druce, and Co.	360	2,346 4 0
Vivian and Sons	1065	6,356 3 6
Williams, Foster, and Co.	1386	6,018 3 9
Mason and Elkington	332	1,339 11 6
Charles Lambert and Co.	244	969 0 0
Landore Copper Company	651	3,005 16 6
Cape Copper Company	360	1,263 0 0
Total	5345	£24,130 12 0

GREAT LAXEY.—The directors of this company have declared a quarterly dividend of 6s. per share (free of income tax), payable on the 25th inst.

SOW AND REAP.—This excellent and bold-speaking monthly, issued by Messrs. Thompson and Son, of Plymouth, contains this month articles on "Indian Gold Mine Breeding," "Hints to Home Investors," "Look out for the Future," "American Securities," remarks on safe and sound mining investments, and other interesting pickings for investors. The paper is well worth perusing.

INFORMATION FOR INVESTORS.—The October circular of Mr. Horace J. Taylor, mining share dealer, Great St. Helen's, has just been issued, in which an epitome of the metal and mining share markets is fully given, as also particulars of several tin, copper, and lead mines which, in his opinion, possess the elements of becoming successful at an early period.

THE GREAT POLGOOTH ENQUIRY.—Mr. A. M. Sullivan has returned to London, restored to health by his visit to the South of Ireland. Mr. Sullivan resumes his professional labours on Monday, when he sits as special examiner in the Great Polgooth Mine case.

NEW GREAT WHEAL VOR.—A correspondent writes that he has visited the mine, and that in his opinion a second Wheal Vor, quite equal to the old mine, will shortly be developed here. He says that if they sink in depth tin will be found in abundance. It is stated that day by day tin is brought to surface, and the latest reports (Oct. 11) say that on that day the stuff brought up was richer than anything seen since the commencement of the workings. The lode is 6 ft. wide, and becomes richer as depth is attained. The blasting yields splendid rocks of tin.

WHITEFORD PARK.—This property, which adjoins the Holmbush and Redmoor Mines, has recently been purchased by the Duchy of Cornwall, and the surface and mineral rights are now combined. During the lifetime of the late Sir William Call some difficulty was experienced in granting for mining purposes within the bounds of the spacious park, which difficulty has now been overcome, and it is said a grant has been obtained by some of the oldest and most experienced mining authorities in the district. It has always been known by every miner in the locality that the Redmoor silver-lead lode passes directly through the property northward, and there can be but little doubt that the Devon Great Consols main copper lode also passes through it westward. The opening up of the mineral resources of this property would be the means of conferring great good on Callington and the neighbourhood, and it is to be hoped it will have a vigorous and successful trial.

We regret to have to announce the death of Mr. RICHARD HODSON, the secretary of the Mysore Reefs Gold Company (Limited), which took place on Thursday morning last, after only a few days' illness, at the age of 61.

[The following Report was received too late for insertion in its proper place.]

SOUTH CONDURROW.—Wm. Rich, Wm. Williams, H. King, Oct. 12: We have nearly completed cutting plat at Marshall's shaft, and hope to begin the sinking below the 40 in a few days. The driving of the 40 west is being proceeded with. The lode in the end is worth 10*l.* per fm., and a stope in the back of this level is worth 12*l.* per fm. The 50 end, east of King's, is worth 12*l.* per fathom. The lode in back of this level is worth 12*l.* per fm. The 60 east is worth 8*l.* per fm. The stope behind this end is worth 12*l.* per fathom. The 60, west of Plantation shaft, carries stones of tin. The rise in back of this level is worth 15*l.* per fathom. We have driven through a branch about 1 ft. wide in the 70 cross-cut south; the cross-cut is being forced on. It seems from the character of the ground as if the main part of the lode is still further south. In the 70, east of King's, there is a little water coming from the end of the cross-cut north. The lode in the 80, east of Plantation shaft, is worth 18*l.* per fm., and in the bottom of the 80, east of King's, the lode is worth 10*l.* per fathom.

LEAD ORES.

Date.	Mines.	Tons.	Price per ton.	Purchasers.
Oct. 11	Foxdale	100	£12 9 0	Weston, Son, and Co.
13	Talargoch:—			
	Maesyrewddu	45	10 8 6	Walker, Parker, & Co.
	ditto	45	10 6 6	ditto
	Coetia Llys	20	10 6 6	Adam Eyton.
	—North Hendre	100	9 10 6	Walker, Parker, & Co.
	— ditto	100	9 11 6	ditto
	—Rhosesmor	50	9 11 6	ditto
	— ditto	50	9 15 0	Sheldon, Bush, & Co.
	—Rhydalun	20	9 15 6	Adam Eyton.
	—Pant-y-Pydew	18	10 0 0	Quirk, Barton, and Co.
	— ditto	2	6 0 0	Walker, Parker, & Co.
	—Speedwell	6	9 16 6	Adam Eyton.
	—Van	40	10 15 0	Panther Lead Co.
	— ditto	40	10 17 6	ditto
	— ditto	40	11 0 0	ditto
	— ditto	40	11 1 0	ditto
	— ditto	40	10 16 6	E. C. Goodhart & Co.

BLENDE.

Date.	Mines.	Tons.	Price per ton.	Purchasers.
Oct. 12	Talargoch	150	£3 6 0	Dillwyn and Co.
	— ditto	67	3 5 0	Vivian and Sons.
	— ditto	67	3 5 0	Crown Zinc Company.
	— ditto	17	3 5 0	Bagillt Smelting Co.
13	—Van	50	2 5 9	J. F. Kimmel.
	— ditto	50	2 7 9	ditto

COAL MINES REGULATION ACT, 1872.

EXAMINATION FOR MANAGERS' CERTIFICATES OF COMPETENCY.

DISTRICT UNDER THE CHARGE OF THOMAS EVANS, Esq., H.M. INSPECTOR OF MINES.

NOTICE IS HEREBY GIVEN, that an EXAMINATION for MANAGERS' CERTIFICATES OF COMPETENCY, under the above-named Act, will be HELD on the 27th and 28th days of October, 1881, and CANDIDATES INTENDING TO PRESENT THEMSELVES AT SUCH EXAMINATION must, on or before the 26th day of October, 1881, notify such intention to the Secretary of the Board of the above-mentioned District, from whom all information as to particulars can be obtained.

By order of the Board,
WILLIAM SAUNDERS, Secretary.

The Wardwick, Derby.

N.B.—Persons who do not reside within the District are equally eligible for examination with those who do.

COAL MINES REGULATION ACT, 1872.

EXAMINATION FOR MANAGERS' CERTICATES OF COMPETENCY.

DISTRICT UNDER THE CHARGE OF WILLIAM ALEXANDER, Esq., H.M. INSPECTOR OF MINES.

NOTICE IS HEREBY GIVEN, that an EXAMINATION for MANAGERS' CERTIFICATES OF COMPETENCY, under the above-named Act, will be HELD on the 25th and 26th days of Novemeer, 1881, and CANDIDATES INTENDING TO PRESENT THEMSELVES AT SUCH EXAMINATION must, on or before the 11th day of November, notify such intention to the Secretary of the Board of the above-mentioned District, from whom all information as to particulars can be obtained.

By order of the Board,
C. MACPHERSON, Secretary.

135, St. Vincent-street, Glasgow.

N.B.—Persons who do not reside within the District are equally eligible for examination with those who do.

COAL MINES REGULATION ACT, 1872.

EXAMINATION FOR MANAGERS' CERTIFICATES OF COMPETENCY.

DISTRICT UNDER THE CHARGE OF JOSEPH DICKINSON, Esq., H.M. INSPECTOR OF MINES.

PERSONS desirous of being EXAMINED in this District for MANAGERS' CERTIFICATES OF COMPETENCY, under the above-named Act, should at once COMMUNICATE with the Secretary of the Board of the above-mentioned District, at the following address:—M. W. Peace, Esq., King-street, Wigan.

By order of the Board,
MASKELL WM. PEACE, Secretary.

N.B.—Persons who do not reside within the District are equally eligible for examination with those who do.

68, HUNTER STREET, SYDNEY.

FRANCIS AND RICHARDS, CIVIL AND MINING ENGINEERS AND SURVEYORS.

Colonial Mining Properties, Metals or Minerals examined or reported on.
Terms moderate.

References in England: Messrs. JOSEPH MATTHEWS and Co., Engineers and Ironfounders, Tavistock, Devon.

MR. F. W. L. GRAHAM, MIDDLESBOROUGH, BROKER FOR THE SALE OF IRON ORES, FERRO-MANGANIFEROUS ORES, PLUMBAGO, BAUXITE, REFRACTORY BRICKS, LEAD, ZINC, COPPER, and TITANIFEROUS ORES and ASHES, SALTS, PHOSPHATES, &c.

ASSAYING OF GOLD QUARTZ.

MR. W. F. LOWE, F.C.S, F.I.C., Associate of the Royal School of Mines, Analyst for the City of Chester and the Counties of Flint and Carnarvon, is prepared to IMPART IN A SHORT COURSE OF LESSONS A THOROUGH PRACTICAL KNOWLEDGE of the METHODS of ASSAYING GOLD QUARTZ, SULPHURETS, and BULLION.

For terms, apply Assay Office, Chester.

MR. W. TREGELLAS, 40, BISHOPSGATE STREET WITHIN, E.C.,

Deals in all descriptions of STOCKS and SHARES at close market prices, and is always in a position to do business in GOLD HILL, SANTA BARBARA, PITANGUI, and BRAZILIAN GOLD MINES.

CHANGE OF ADDRESS.

FRED. W. NORTH, F.G.S., LAND AGENT AND MINING ENGINEER, Member Inst. North of England Mining Engineers, Inst. Mechanical Engineers, Royal Colonial Institute, late Mining Engineer for the Governments of Cape Colony and of Natal.

OFFICES.
ROWLEY HALL, NEAR DUDLEY, STAFFORDSHIRE.
34, CLEMENT'S LANE, LOMBARD STREET, LONDON, E.C.

Telegrams: North. Rowley Hall, Rowley Regis.

Agent for Lessors' Mineral Rents; Reports and Valuations of any Mineral Property; Parish Assessments for Poor Rates; Negociations for Development of Mining Estates; Management of Collieries and Mines; Consultations as to Value of Mining Companies; and regular advices as to the Diamond Mines of South Africa.

THE MINING INQUIRY OFFICE
262, GRESHAM HOUSE, E.C.

CARTER AND CO., STOCK AND SHARE DEALERS, 8, UNION COURT, OLD BROAD STREET, LONDON,

Know of two or three Mines well situated and well managed, having abundance of mineral, which they can strongly recommend to intending investors for a substantial rise, and for good dividends.

Those desirous of making a good investment will do well to write to CARTER and Co. for particulars.

C. T. REEVES AND CO.
(ESTABLISHED 1872.)
STOCKBROKERS,
19, WALBROOK, LONDON, E.C.

INVESTMENTS IN STOCKS AND SHARES.

Purchases and Sales of Home, Foreign, and Colonial Stocks and Shares made at the closest market prices either for cash or the fortnightly settlement.

LOANS.

Advances made on Stocks, Shares, and other negociable Securities at equitable rates of interest.

Speculative accounts opened on favourable terms.

Special Business in Gold Mining Shares.

C. T. R. and Co.'s Monthly Price List and Report on the Stock Markets sent post free on application.

TO INVESTORS SEEKING SOUND, CHEAP, GENUINE, AND PROGRESSIVE INVESTMENTS.

MESSRS. THOMPSON AND SON, PLYMOUTH, after 30 years practical experience, do not hesitate to recommend the UNDERMENTIONED MINE SHARES for IMMEDIATE PURCHASE, well knowing they will ere long rank amongst the richest mines Cornwall has ever produced, and at present prices the cheapest in the market. The capital in each, although sufficient, is very small, not one-quarter of the promotion money charged by some vendors of abandoned and impossible mines. The various considerations offered to shareholders in the following mines, as compared with those of the generality of the latest announced ventures, are deserving of the careful judgment of mining shareholders. The fullest particulars will be given, and questions answered. The mines referred to are—

THE OLD WHEAL ROSE SILVER-LEAD AND SPATHOSE IRON MINE.

This mine is in the parish of Sithney in the Mounts Bay. It is not near nor has anything akin to East Wheal Rose in Newlyn. This mine has only been worked 58 fms. deep, returning over £100,000 worth of lead, containing 60 ozs. to silver to the ton. This little depth for a lead mine in Cornwall is only where West Chiverton, East Wheal Rose, and other rich mines commenced to make; therefore, it is nearly maiden ground. The fullest particulars may be seen in Messrs. Thompson's pamphlet on Sound and Rising Mines. Sent post free. These shares are at present only 20s. each, fully-paid.

NEW PENROSE TIN AND COPPER MINE COMPANY (LIMITED).

This mine is in the parish of Breage in the Mounts Bay, and was extensively worked under the sea from the cliff, but never inland. Over £100,000 profit was made from the workings, but the sea broke in and the mine stopped; an immense area of mineral (maiden) ground is now being explored and worked inland, and the same lode which made such riches under the sea is now being sunk on. Any week a great discovery may be made. These shares are only at par at 20s. each, fully-paid. Shareholders should apply for particulars. Capt. Charles Thomas, the late manager of Dolcoath, pronounced the mine a worthy undertaking.

THE ROYALTON TIN MINE COMPANY (LIMITED).

This mine is in the parish of St. Columb, the property of the Prince of Wales as Duke of Cornwall; it is only 25 fms. deep, and has been worked as an open-cutting, where the tin stone was so very prolific that £20,000 were realised with very slight machinery. No mine offers a better prospect of early success than this, as there are thousands of tons of tin stone now in sight. These shares are at par, or 20s. fully-paid, but will very soon go to a premium.

Messrs. THOMPSON and SON cannot guarantee to deliver any large quantity of these shares at par, as any day they may be dealt in at enhanced prices. Messrs THOMPSON invite a perusal of their circular, which contains particulars of other mines.

Plymouth, September 8th, 1881.

In the High Court of Justice—Chancery Division.
MR. JUSTICE CHITTY.

IN THE MATTER OF THE COMPANIES ACTS, 1862 AND 1867; AND IN THE MATTER OF THE MORAY FIRTH MINING COMPANY (LIMITED).

IMPORTANT NOTICE TO OWNERS OF MINING PROPERTY, CAPITALISTS, SPECULATORS, AND OTHERS.

TO BE SOLD, BY TENDER, the VALUABLE LEASE and MINING RIGHTS, extending over an area of 150 acres, or thereabouts, in the parish of Drainie, on the shores of the Moray Firth, and close to Lossiemouth, in the county of Elgin, N.B., held direct from the Lord of the Manor at a nominal dead rent, merging into a very light royalty for a term of 21 years, together with the extensive and newly-erected BUILDINGS, and the

VALUABLE PLANT, MACHINERY, AND STORES

Therein contained, all of which were new within the past 18 months, and include complete PUMPING, WINDING, CRUSHING, and DRESSING MACHINERY, besides a large quantity of STORES and LOOSE MATERIALS of first-rate quality.

Orders to view the property and detailed particulars of the Buildings, Plant, Machinery, and Stores thereon and therein, and a Form of Tender, together with particulars and conditions of sale, may be obtained from the following Solicitors:—

Messrs. GREENFIELD and ABBOTT, 37, Queen Victoria-street, E.C., London; Messrs. G. and P. GATHERER, 30, North-street, Elgin, N.B.; and Messrs. CAMERON and ALLAN, Bank of Scotland, Elgin, N.B.; also from the Official Liquidator, JOHN H. TILLY, Esq., F.C.A., 37, Queen Victoria-street, E.C., London.

All Tenders must be sent in—marked, "Tender Moray Firth Mining Company (Limited)"—on or before the 31st day of October, 1881, and addressed—JOHN W. HAWKINS, Esq., Chief Clerk, Mr. Justice Chitty's Chambers, Rolls Yard, Chancery-lane E.C., London.

The Court does not bind itself to accept the highest or any Tender.

TUESDAY, OCTOBER 25TH, at Twelve o'clock.
PENDARVES UNITED MINES, CAMBORNE, CORNWALL,
About One Mile from Camborne Railway Station.

MR. W. T. DAVEY (Auctioneer, &c., Redruth) WILL SELL, BY PUBLIC AUCTION, at the above Mine, on Tuesday, October 25th, at Twelve o'clock, the WHOLE of the VERY VALUABLE

MACHINERY AND MATERIALS

THEREON, CONSISTING OF—

ONE PAIR of double-acting 24 in. cylinder ROTARY ENGINES, with fly wheels, wrought iron shafts, cages, &c., &c.
TWO 12 ton BOILERS, very good, fitted with Galloway tubes.
About 125 fms. of PITWORK, including PUMPS from 9 in. to 11 in., with H pieces, door pieces, poles, &c., to match.
Between 150 and 200 fms. of nearly new 9 in. pitch pine MAIN RODS, with strapping plates to match.

One 65 feet shears, with sheaves, brasses, &c.
Balance and other bobs, complete.
Capstan, pulley stands, &c.
About 40 fms. 1¾ in. iron rods and connections.
One horse whim and shaft tackle.
Whim kibbles, &c.
One double power crab winch.
One single ditto
Long run of launders, stays, &c.
130 fms. nearly new iron stave ladders.
150 fms. nearly new fine wire 3¼ inch best steel wire rope.
240 fms. 1¾ in. ditto
Fagotted and rolled plates.
Dry tube. One pair of bugles.
Lot of chain.
One powerful lifting jack.
Nearly new drop screw, blocks, &c.
Staples and glands, flange bolts, pump rings, &c.

Norway, balk, and other useful timber, sundry old and useful iron, smiths' anvil, nearly new 36 in. smith's bellows, screw stock and screwing tools, smiths' tools, yokes, horse, mandril, miners' tools, &c., best steel, new and working iron, cask of olive oil, P.Y.C. tallow, new tackle, rope, white yarn, beam, scales, and weights, carpenter's bench, grinding stone, sampling irons, scales and weights, wheelbarrows, wood cisterns, candle and miners' chests, account house furniture, and sundry other articles in use in Mines.

The above will first be offered in One Lot, and if not sold will immediately be put up in lots to suit the convenience of purchasers.

Refreshments at 11·30. Sale at 12·30 precisely.

To view, apply to Capt. BRENTON, on the Mines; and for further particulars to SAMUEL ABBOTT, Esq., Redruth; JOHN HOCKING, Esq., Redruth; or at the Offices of the Auctioneer, Redruth.

Dated, Salem House, Scorrier, October 10th, 1881.

P.S.—THIS ADVERTISEMENT WILL NOT BE REPEATED.

FOREST OF DEAN, GLOUCESTERSHIRE.
TO CAPITALISTS, SPECULATORS, AND OTHERS.
IMPORTANT SALE OF TWO COLLIERIES,
EXTENDING OVER AN AREA OF
FOUR HUNDRED AND EIGHTY ACRES OF UNWORKED COAL.

MR. JOHN INNELL WILL OFFER FOR SALE, BY AUCTION, on Saturday, the 29th day of October, 1881, at the Bell Hotel, Gloucester, at Three o'clock in the afternoon, and subject to conditions and plans to be then produced, all those

TWO VALUABLE COAL WORKS, known as the
"ARTHUR AND EDWARD," and "MIREY STOCK" COLLIERIES,

Together with the STEAM ENGINES, BOILERS, and the general WORKING PLANT.

The Collieries are held as a grant from the Crown, subject to a small royalty, a large outlay having been made for the machinery now on the works.

The necessary powerful pumping and winding engines, engine houses, boilers, boiler stacks, weighing house, blacksmiths' shop, and buildings are upon the spot, also pumps, &c.. are in the pits, suitable for contending with the water, and it would only require a moderate outlay to put the collieries in a position to raise 300 tons per day.

Two pits have been sunk upon the property to the Coleford High Delf Vein, which averages a thickness of 4 ft. 6 in., and is of excellent quality for house, steam, and forge purposes.

The Severn and Wye Railway runs within a few hundred yards of these Pits, to which easy communication can be made, connecting them with the Port of Lydney, the South Wales Railway, and the Ross and Hereford Railway, and thus affording great facilities for traffic.

For further particulars, apply to GEORGE ATKINSON, Esq., Perry Grove House, Coleford; W. ROBERTS, Esq., Solicitor, Coleford; or to the Auctioneer, Ross.

IMPORTANT SALE OF THE LEASEHOLD INTEREST in the LLAY HALL COLLIERY, IRONWORKS, and CLAYWORKS, together with the MACHINERY and PLANT, FREEHOLD LAND and COTTAGES, LIVE STOCK, &c., belonging thereto, situate near Wrexham, in the county of Denbigh.

MESSRS. CHURTON, ELPHICK, AND CO. have been favoured with instructions from the Liquidators, under an order made by the Chancery Division of the High Court of Justice, TO SELL, BY AUCTION, as a going concern, in the lots described in printed particulars of sale, or in such other lots as may be determined upon at the time of sale, and subject to such conditions as may be then produced, at the Grosvenor Hotel, Chester, on Wednesday, the 26th October, 1881, at Two for half-past Two o'clock P.M. punctually,

THE LEASEHOLD INTEREST

In the above-mentioned valuable property, known as the Llay Hall Colliery, Ironworks, and Clayworks, which have for the past eight years been worked by the company, and may safely be described as one of the most valuable, important, and extensive in the North Wales district, upwards of £120,000 having been laid out in developing the concern, together with the whole of the valuable Steam Engines, Machinery, and Plant, Tools and Effects belonging thereto, 30 Freehold Cottages near to the works, and about 12½ acres of Freehold Land.

The works, &c., may be inspected any day between Ten and Four o'clock up to the day of sale. They are easily accessible, about 3½ miles from the Wrexham Station on the Great Western Railway, and ½ mile from the Cefn-y-bedd Station on the Wrexham, Mold, and Connah's Quay Railway.

Applications for orders for inspection of the plans and underground workings of the Colliery to be made to the Liquidators, Messrs. E. J. BARTLETT and H. R. DUKE, 7, Queen Victoria-street, London, E.C.

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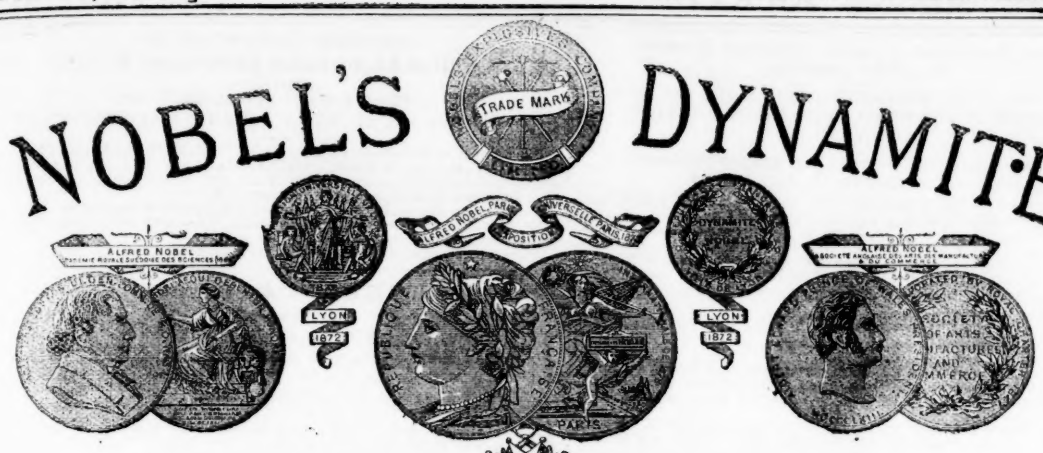

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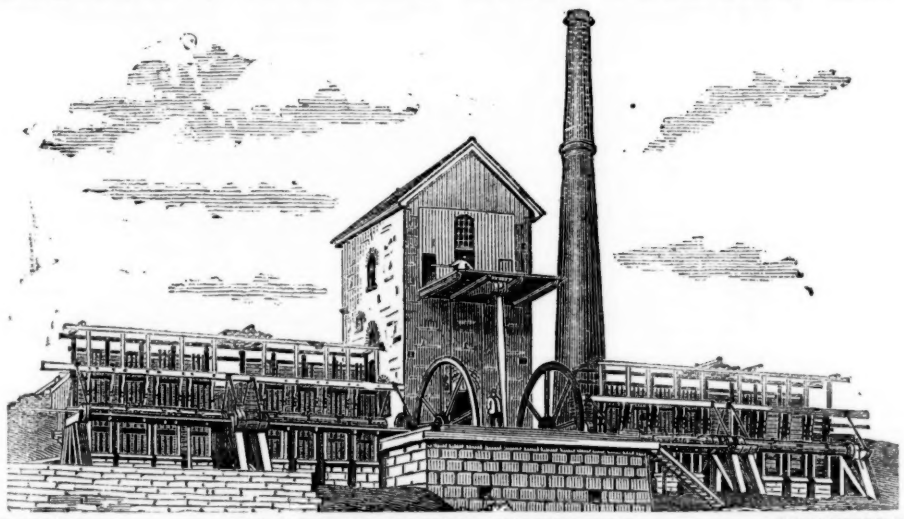

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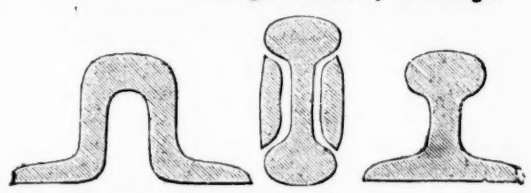

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100000	Port Phillip, g, Clunes*† (£2 shares)	1 0 0	½	¼ ½	1 14 2	0 0 10	Feb. 1881
54000	Richmond Consol., s, Nevada*†	5 0 0	15¼	15 15½	12 11 6	0 10 0	Aug. 1881
1358880	Rio Tinto,*c, Sp.Coup.Bds., Huelva.	100 0 0	101	99 101	5 per cent.		July 1880
225000	Ditto, shares	10 0 0	24½	24 25	0 18 0	0 8 0	Nov. 1880
40000	Santa Barbara,* g, Brazil	0 10 0	2	1¾ 2	0 11 9	0 1 0	June 1880
120000	Scottish-Australian Mining Co.*†	1 0 0	1¾	1½ 1¾	10 p. cent.		Apr. 1881
80000	Ditto, New	0 10 0	⅞	⅝ ⅞	10 p. cent.		Apr. 1881
59000	Sentein,* s-l, bl, Ariège, France	1 0 0	1⅛	⅞ 1⅛	0 2 0	0 2 0	Jan. 1880
22500	Sierra Buttes, g, California*†	2 0 0	1¾	1½ 1¾	2 2 6	0 1 0	Apr. 1881
40625	Ditto, Plumas Eureka	2 0 0	2¾	2½ 2¾	2 13 0	0 3 0	Apr. 1881
100000	So. Indian,* g, Madras (fully pd.)†	1 0 0	1⅝	1½ 1⅝	0 4 0	0 4 0	Aug. 1881
253000	St. John del Rey*† (£5 Stock and multiples dealt in)			190 200	5 p.c. for half-year, Dec. 1880		
92566	Tharsis,* c, sul, Spain (31000s. 7l.p.)†	10 0 0	43	42½ 43½	6 10 0	2 10 0	June 1881
20000	Tolima,* g, s, Colombia	5 0 0	—		1 16 6	0 4 9	Apr. 1881
25000	Victoria* (London), g, Australia	1 0 0	—		0 13 10	0 0 8	Feb. 1881
15000	Western Andes, s, Colombia	5 0 0	—		2 18 0	0 2 6	Aug. 1880
2100	W. Prussian (5500 pref. sh. £10 pd.)	10 0 0	10	9 10	4 2 0	0 8 0	Apr. 1881

§ Have made calls since last dividend was paid.

NON-DIVIDEND BRITISH MINES.

Shares.		Paid.	Last wk.	Clos pr.
30000	Alston United,* l, Cumberland	1 0 0	1⅛	1 1⅛
12000	Assheton, l, Carnarvonshire*	5 0 0	¾	½ ¾
10000	Atlantic,* c, l (res. shares 28,000)	1 0 0	1⅜	1¼ 1⅜
36000	Basset & Buller Cons.,* c. t, Illogan.	1 0 0	—	
11583	Bedford Unit.,* c, Tavis.(£1 liab.)	0 8 0	1¾	1½ 1¾
30000	Blackburnbanks & Gildersdale, l	0 5 0	½	⅜ ½
30000	Bodidris,* l, bl, Denbighshire	1 0 0	⅞	¾ ⅞
30000	British,* s-l, bl, Wrexham	1 0 0	1⅛	1 1⅛
20000	Bwlch United,* l, Cardigan	0 17 6	3¼	3 3¼
25000	Callington Consols*, t	2 0 0	2¼	2 2¼
50000	Cambrian,* s-l, c, Cardiganshire	2 0 0	—	
6000	Carn Camborne, t, c, Camborne	0 8 0	3½	3 3½
20000	Carnarvon,* c, Carnarvonshire	1 0 0	1⅛	¾ 1
37500	Carnarvonshire Cons.,* l, Llanrwst.	2 0 0	2	1 2
30000	Carpella Consols,* St. Stephens	1 0 0	1	1 1¼
6000	Cathedral Cons., c, t, Gwennap	0 10 9	—	
20000	Central Foxdale,* l, Isle of Man	1 17 6	2¼	2 2¼
25000	Coed-y-Fedw & Pant-y-Buarth,* l	1 0 0	1¼	1 1¼
2450	Cook's Kitchen, t, Illogan†	30 14 9	26½	25 25½
15500	Court Grange United*, s-l	1 0 0	—	
6400	Crook Burn,* l, Cumberland	0 12 6	⅜	⅛ ⅜
14000	Crosswood Mining Lands, l*	1 0 0	1¼	¾ 1¼
45000	D'Eresby Mountain, l, bl, Llanrwst.	0 10 0	2½	2 2½
20000	Denbighshire Consolidated,* l	3 0 0	3	2 3
12000	Derwent,* l, Durham	4 0 0	1½	1¼ 1½
50000	Devon,* c, bl, Tavistock	1 0 0	—	
60000	Devon Friendship,* c, ars, Tavistock	1 0 0	1⅛	1 1⅛
12000	Devon Great United* (2l. shares)	1 0 0	1¼	1 1¼
50000	Drakewalls,* t, c Calstock	1 0 0	¾	½ ¾
10000	Dubby Syke, l, Durham*	1 0 6	¼	⅛ ¼
12000	East Blue Hills, t, St. Agnes	0 5 0	½	⅜ ½
6000	East Botallack, t, St. Just	0 8 0	1¾	1¼ 1¾
6144	East Caradon, c, St. Cleer‡	3 19 6	⅜	¼ ½
4000	East Chiverton, l, Perranzabuloe	10 4 9	2	1½ 2
30000	E. Craven Moor,* l. Pateley Bridge	1 0 0	⅞	⅝ ⅞
12000	East Crebor, c, Tavistock	0 11 6	¼	⅛ ¼
15000	East Devon Cons.,* c, Buckfastlgh.	2 0 0	3	2½ 3
30000	East Herodsfoot, s-l, Liskeard	1 0 0	1⅛	1 1⅛
20000	East Long Rake,* l, Wales	1 0 0	1¼	1⅛ 1¼
21000	East Roman Gravels,* l, Salop	0 15 0	⅞	⅞ 1
18000	East Van, l, Llanidloes*	5 0 0	1½	1 1½
4096	East Wheal Buller, t, c, Gwennap	0 10 0	—	
2048	East Wheal Lovell, t, Helston	15 3 6	3	2¾ 3¼
100000	East Wheal Rose,* s-l, Newlyn East	0 10 0	—	
12000	Gawton,* c, Tavistock (2l. shares)	1 16 0	1	½ ⅝
14000	Glenroy,* s-l, Isle of Man	4 0 0	⅝	⅜ ⅝
30000	Gobbett,* t, Dartmoor	1 0 0	1¼	1⅛ 1¼
10000	Goddards,* l, b, Carnarvon	1 0 0	1¼	1 1¼
32000	Goginan,* l, Cardiganshire	1 0 0	1¼	1 1¼
25000	Goodevere, t, St. Cleer	1 0 0	1¼	1⅛ 1¼
20000	Griffin,* s-l, Carnarvon	1 0 0	—	
20000	Great Dyliffe* (10000 sh. issued)	1 0 0	1⅛	⅞ 1⅛
12000	Great Holway,* l, Flintshire	5 0 0	5½	5 5½
100000	Great Polgooth United,* t	1 0 0	1⅛	⅞ 1⅛
6000	Great West Chiverton, l, St. Agnes.	0 5 0	⅜	¼ ⅜
10000	Gwern-y-Mynydd,* s-l, Flint(pref.)	4 0 0	1½	1¼ 1½
70000	Gwydyr Amal.* l, bl, Carnarvon	1 0 0	⅝	½ ⅝
12000	Herodsfoot, l, near Liskeard†	0 10 9	¾	½ ¾
18000	Hingston Down, c, Calstock*†	0 12 0	1¼	1¼ 1½
20000	Kirkmichael,* l (2000 unissued)	1 0 0	1⅛	1 1⅛
6000	Killifreth, t, Chacewater	4 1 6	1⅝	1⅜ 1½
25000	Kit Hill Gt. Cons.* c, ars-m, (2l. sh.)	0 15 0	⅞	⅝ ⅞
15000	Lady Ann,* s-l, Llanarmon	1 0 0	1⅛	⅞ 1⅛
30000	Lady Ashburton,* s, Callington	1 0 0	1⅝	1⅜ 1⅝
15000	Lady Bertha,* c, Tavistock	1 0 0	—	
2500	Levant, c, t, St. Just	11 10 0	1⅝	1½ 1⅝
15000	Llandegla,* l, Wales	1 0 0	1⅛	⅞ 1⅛
10000	Lomax,* s-l, Helston	1 0 0	1¼	1 1¼
5120	Lovell, t, Wendron	0 16 0	1½	1¼ 1½
9000	Marke Valley, c, Linkinhorne‡	6 4 6	1½	1¼ 1½
6000	Medlyn Moor, t, Wendron	3 15 10	—	
28000	Mid-Devon,* c (& 17000, 3s. 4d. pd.)	0 6 8	—	
20000	Mona Consols,* c, Anglesea	1 0 0	1¼	1⅛ 1⅜
15000	Monkstown,* man, Devon	2 0 0	2⅝	2⅜ 2⅝
20000	Mostyn Consols,* s-l, Flint	1 0 0	—	
10000	Mynydd Gorddu, l, Cardigan*	4 0 0	4	3½ 4
12000	Morfa Du, z, g, s, Anglesea*	1 0 0	⅞	¾ ⅞
80000	Mounts Bay,* c, t, Breage	0 10 0	⅜	⅛ ⅜
6144	Mount Carbis, t, c, Redruth	1 0 0	3	3 3¼
2400	New Cook's Kitchen, t, Illogan	8 1 0	6	5½ 6
8000	New Dolcoath, t, c, Camborne*	3 0 0	—	
10000	New Holmbush,* t, c, Callington	2 0 0	—	
6000	New Kitty, t, St. Agnes	0 10 0	2¼	2 2¼
12000	New Penrose,* t, c, Helston	1 0 0	1¼	1⅛ 1¼
3500	NewTincroft,* t, Lelant	6 0 0	½	¼ ½
2000	New Trumpet. t, Wendron	0 10 0	1¼	1 1¼
12000	New West Caradon, c, Liskeard	0 2 6	⅜	⅜ ⅝
3000	New Wheal Peevor, t, Redruth	0 10 0	2¼	1¾ 2¼
35000	New Wye Valley, l, Montgomery.*	1 0 0	1¼	¾ 1¼

NON-DIVIDEND MINES—*continued.*

Shares.		Paid.	Last wk.	Clos pr.
20000	North Alfred, c, Phillack	0 10 0	1⅜	1⅛ 1⅜
5328	North Busy, t, c, Blackwater	0 10 8	⅜	¼ ½
10000	N. D'Eresby Mount.,* l, bl, Carnarv.	1 0 0	1½	1 1¼
25000	North Goginan,* l, Cardiganshire	1 0 0	1¼	1 1¼
12000	North Herodsfoot, l, Liskeard	0 8 6	⅝	½ ⅝
50000	North Molton,* c, mn, t, Devon	1 0 0	—	
6000	North Penstruthal, t, c, Gwennap	1 14 6	1⅛	⅞ 1⅛
2936	North Treskerby, c, St. Agnes	8 17 10	—	
8000	Northern,* l, Durham	1 0 0	1⅜	1⅛ 1⅜
40000	Okel Tor,* t, c, a, Calstock	1 0 0	1½	1 1½
80000	Old Shepherds s-l, Cornwall	0 10 0	—	
12000	Pandora,* l, Carnarvon	2 0 0	¾	¾ 1
11612	Pant-y-Mwyn,* l, Mold	2 0 0	2⅛	1⅞ 2¼
45000	Parys Corporation,* c, Anglesea	1 0 0	1	¾ ⅞
7500	Pateley Bridge, l, Yorkshire	1 0 0	—	
6000	Pedn-an-drea, t, Redruth	2 7 0	4½	4 4¼
12000	Pelyn Wood, c, Lanivery	0 5 0	⅝	½ ⅝
600	Pendarves United, c, Camborne	8 0 0	2½	2 2½
30000	Penhale and Barton, t, St. Columb	1 0 0	1⅛	1 1⅛
12000	Pen-yr-Orsedd,* l, Flintshire	1 0 0	1¼	1 1¼
15000	Perran Consols,* s-l	1 0 0	1¼	1 1¼
100000	Pioneer,* var. Wales	1 0 0	1¼	1 1¼
10000	Polrose, t, Cornwall	0 13 6	⅝	⅜ ⅝
10000	Port Nigel,* s-l, Carnarvonshire	2 0 0	2	1½ 2
6000	Prince Royal, t, e, s-l, St. Agnes	1 0 6	1½	1¼ 1½
12000	Prince of Wales, c, s, Calstock	0 11 6	⅞	⅝ ⅞
15000	Royalton,* t, St. Columb	1 0 0	1¼	1 1⅛
36000	Russell United,* c, Tavistock	0 15 0	⅞	⅝ ⅞
30000	Silver Hill,* Callington	0 10 0	⅝	½ ⅝
40000	Sortridge,* c, Horrabridge	1 0 0	1¼	1 1¼
6000	South Carbis, t, c, Redruth	0 10 0	¾	¾ 1
35000	So. Devon Unit.,* c, Buckfastleigh.	1 0 0	2	1¾ 2
6000	South Penstruthal, t, c, Gwennap	1 12 6	⅜	¼ ⅜
6000	South Roskear, t, c, Camborne	8 5 0	—	
6000	South Tolcarne, t, c, Camborne	4 6 6	2½	1½ 2
40000	South Wheal Crebor*, c, Tavistock	1 0 0	1⅛	⅞ 1⅛
2043	South Wheal Crofty, c, Illogan	19 7 0	11	9½ 10½
40000	Tamar, s-l, Bearalston*	1 0 0	1¾	1¼ 1½
110000	Tankerville Gt. Consols, l, Salop*.	0 10 0	½	⅜ ½
6400	Teesdale,* Durham (pref.)	1 0 0	¼	¼
20000	Tin Hill,* St. Stephens.	1 0 0	1⅝	1⅜ 1⅝
10000	Temple,* l, Cardigan	1 0 0	—	
12000	Trevince Consols, t, c, Gwennap	0 5 0	1¼	1 1¼
6000	Trugo, c, St. Columb	0 8 0	1½	1¼ 1½
10000	Tyn-y-Fron,* l, Cardiganshire	1 0 0	1¼	1 1¼
35000	Un. Van & Glyn,* l, (& 17500 pref. sh)	1 0 0	⅜	¼ ⅜
1000	Vaughan,* l, Cardiganshire	10 0 0	—	
18000	Victor,* l, Cilcen, Flintshire	0 14 0	½	¼ ½
15000	Vincent,* t, Altarnum	1 0 0	1¼	1 1¼
20000	Walkham United,* t, c, Tavistock	1 0 0	1⅛	1 1⅛
12000	West Assheton, l, Carnarvon	1 0 0	2	1¾ 2
12000	West Caradon, c, St. Cleer	0 6 9	1¼	1 1¼
3000	W. Craven Moor, l, Pateley Brdge*	10 0 0	—	
12000	West Crebor, c, Tavistock	0 5 0	½	⅜ ½
10240	West Devon Consols, c, Calstock	1 0 0	1½	1 1½
10000	West Godolphin, t, c, Breage	0 15 0	2¼	2 2½
6000	West Kitty, t, St. Agnes	0 12 0	9½	9 9½
20000	W. Lisburne,* l, (1l. sh.) Cardigan	1 0 0	1½	1¼ 1½
3000	West Mary Ann, l, Menheniot	1 13 0	1	⅞ 1
20000	W. Pateley Bridge, l, Yorkshire	1 0 0	1¼	¾ 1¼
12000	West Phœnix, t, c, Linkinhorne	0 12 8	1⅛	⅞ 1⅛
6000	West Polbreen,* t, c, St. Agnes	0 2 0	1¾	1½ 2
5190	West Poldice, St. Day‡	6 0 0	6¾	6¼ 6¾
10000	West Vor,* t, Helston	2 0 0	2	1½ 2
2048	West Wheal Frances, t, Illogan‡	30 1 3	19	18 19
3000	West Wheal Peevor, t, Redruth	3 0 6	14½	14 14½
12000	West Wye Valley,* l, Montgomery.	3 0 0	—	
6000	Wheal Agar, c, Illogan‡	14 6 0	14½	14 14½
6144	Wheal Basset, c, Illogan‡	6 1 0	5¾	5½ 6
3000	Wheal Boys, t, Redruth	0 16 0	2½	2 2¼
12000	Wheal Coates United,* t, St. Agnes	0 17 6	1⅞	1⅝ 1⅞
2585	W. Comf., & No. Tres., t, c, Gwennap	2 2 0	2½	2 2½
50000	Wheal Elizabeth,* t, Cornwall	1 0 0	⅞	⅝ ⅞
5000	W. Fortune,* s, c, ars, Harrowbarrow	1 0 0	3	2¾ 3
15000	Wheal George,* l, bl, Carnarvon	1 0 0	3	2¾ 3
12288	Wheal Jane, t, Kea‡	1 10 8	⅞	¾ 1
12000	Wheal Jewell, c, St. Hilary	0 16 6	¾	½ ¾
25000	Wh. Hony and Trelawny, s-l, Lisk.	2 0 0	3	2¾ 3
12000	Wheal Lusky, t, Callington	0 0 7	—	
2000	Wheal Owles, t, St. Just‡	7 3 0	—	
6000	Wh. Prussia, & Cardrew, t, c, Rdrth	2 0 0	1¾	1½ 2
6000	Wheal Sisters, t, Lelant	3 5 0	2	1½ 2
4096	Wheal Uny, t, c, Redruth	15 16 0	3¾	3¼ 3¾
4000	Ystwith,* l, Cardigan	1 0 0	1¼	¾ 1¼

bl, blende; *c*, copper; *g*, gold; *l*, lead; *s*, silver; *sl*, slate; *s-l*, silver-lead; *t*, tin; *z*, zinc; *i*, iron; *a*, arsenic.
* Limited Liability Companies; † quoted on the Stock Exchange; ‡ have paid dividends.

NON-DIVIDEND FOREIGN MINES; FOREIGN AND MISCELLANEOUS STOCKS; TRAMWAYS; INSURANCE COMPANIES; GAS, IRON AND COAL, WAGON COMPANIES, &c.

NON-DIVIDEND FOREIGN MINES.

Shares.		Paid.	Clos. pr.
67000	Akankoo,* g, Gold Coast	0 5 0	¼ ⅜
64880	Anglo-African,* d, Kimberley,†	2 0 0	3 3½
12000	Arendal, c, Norway	4 0 0	2½ 2¾
120000	Asia Minor,* s-l, Lidjessy, Sivas	0 7 6	
30000	Bratsberg,* c, Norway	2 0 0	2 2¼
40000	Brazilian, g,* Brazil	1 0 0	1 1¼
200000	British Australian,* g, N. So. Wales	1 0 0	
10000	Buena Ventura,* l, Spain (fy.pd)	2 0 0	
130000	California,* g, Colorado	1 0 0	1⅛ 1¼
130000	Callao Bis,* g, Venezuela	1 0 0	
15000	Canada,* g	1 0 0	
82500	Canadian, c, sul,* Canada†	4 0 0	1⅜ 1⅝
23000	Central Jagersfontein Diamond*	5 0 0	2 3
1?0000	Cherambadi (Wynaad) District,* g.	1 0 0	
500000	Chile,* c, Venezuela	1 0 0	
106505	Chontales, g, s, Nicar.*† (98000 iss)	1 0 0	1/16 3/16
75000	Colar,* g, Mysore	0 10 0	½ ⅝
75000	Colombian Hydraulic, g, Colombia	1 0 0	
65000	Colorado United, s-l Colorado*†‡	5 0 0	2⅜ 2⅝
100000	Cootacovil,* g, Wynaad	1 0 0	
120000	Devala Central,* g, Wynaad	1 0 0	¾ 1
200000	Devala Moyar,* g, Wynaad†	1 0 0	1⅛ 1⅜
75000	Devala Provident,* g, Wynaad†	0 10 0	1/16 3/16
50000	Dieu Donné,* g, Surinam	0 12 6	
100000	Dingley Dell,* g, Devala, India	1 0 0	
100000	Don Pedro North del Rey*	1 0 0	⅜ ⅝
205168	Eberhardt, s, Nevada*†	1 0 0	½ ¾
20000	English Australian, g, Victoria*	1 0 0	⅞ 1⅛
65000	Eureka,* s, Nevada	1 0 0	
100000	Exchequer, g, s, California*†	1 0 0	1/16 3/16
160000	Flagstaff District,* s.g. Utah	1 0 0	
65000	Gold Coast,* g, Wassau	1 0 0	
140000	Gold Hill,* g, North Carolina	1 0 0	1 1¼
250000	Gold Mining Assn. of Canada*	1 0 0	
75000	Great Southern Mysore,* g	1 0 0	
120000	Hoover Hill,* g, North Carolina	1 0 0	¾ 1
10000	Hornachos,* s-l, Spain	10 0 0	10 10½
12000	Hultafall,* l, bl, Orebro, Sweden	5 0 0	
150000	Indian Consolidated,* g	1 0 0	¾ 1
100000	Ind. Glenrock,* g, Wynaad†	1 0 0	1⅜ 1⅝
150000	Indian Mammoth,* g, Chulimulla.	0 5 0	
150000	Indian Phœnix,* g, Wynaad†	1 0 0	⅞ 1⅛
150000	Indian Trevelyan,* g, Wynaad	1 0 0	¾ 1
100000	I.X.L., g, s, California*	1 0 0	1/16 3/16
50000	Javali, g, Nicaragua*	2 0 0	
50000	Kapanga,* g, New Zealand	1 0 0	⅜ ½
125000	Keystone,* g, North Carolina	1 0 0	
100000	La Concepcion,* g, Venezuela	1 0 0	
65000	London and California, g*†‡	2 0 0	1/16 3/16
135000	Madras,* g, Mysore	1 0 0	
100000	Michipicoten,* nat. c, Quebec	1 0 0	1⅛ 1⅜
9000	Missouri, l, pref (fully paid)	10 0 0	10 10½
50000	Moselle,* l, b-l, Germany	1 0 0	
135000	Mysore,* g, India†	1 0 0	1⅜ 1⅝
120000	Mysore Reefs,* g, Madras	1 0 0	⅜ ⅝
40000	Nava de Jadraque,* g, s, Spain	1 0 0	
125000	Needlerock,* g, Wynaad	1 0 0	
37000	N. Gold Run,* hyd, Cal. (& 23000 pref	1 0 0	
100000	Nine Reefs,* g, Kolar, Mysore	1 0 0	
75000	Norway,* c, Halsönön and Radön.	1 0 0	
200000	Nouv. Monde, g, Ven. (en com.)†.	1 0 0	½ ¾
100000	Nundydroog,* g, Mysore	0 15 0	
150000	Olathe,* s-l, Leadville, Colorado	1 0 0	
125000	Ooregum,* g, Mysore	1 0 0	⅜ ⅝
15000	Organos,* g, Colombia	1 0 0	1⅜ 1⅝
150000	Parcherry,* g, South-East Wynaad.	1 0 0	
80000	Pestarena United, g, Italy*†	3 0 0	5/16 7/16
100000	Pierre d'Or,* g, Spain	1 0 0	
80000	Pierrefitte* (20000 pref.)	1 0 0	
30000	Placerville, g, q, California	2 0 0	
50000	Potosi,* g, Venezuela†	1 0 0	¾ 1
300000	Providence,* g, s, California	1 0 0	
50000	Rara Fortuna,* s, Argent. Repub.	1 0 0	
40000	Ravenscliff, g, N. Zlnd; c, S. Aust.	0 5 0	
90000	Rhodes Reef,* g, Wynaad†	1 0 0	⅝ ⅞
25000	Rico, s, Colorado (non.-assessable).	2 0 0	

NON-DIVIDEND FOREIGN MINES—*continued.*

Shares.		Paid.	Clos. pr.
8600	Rio Grande do Sul* (and 31,000 pref.)	5 0 0	
100000	Rossa Grande, g, Brazil*† (£1 sh.).	1 0 0	1/16 3/16
25300	Ruby and Dunderberg, g, Nev.*†	10 0 0	4¼ 4¾
34022	San Pedro,* c, Chili	1 15 0	
120000	Santa Cruz,* sul, c, Ferrol, Spain	1 0 0	½ ¾
250000	Silver Peak,* s, Colorado	1 0 0	1⅛ 1⅜
200000	Souback & Catir Alan,* s-l, Turkey.	1 0 0	
100000	South-East Wynaad, g, India†	1 0 0	1⅛ 1⅜
160000	Tambracherry,* g, Wynaad	1 0 0	1 1¼
150000	Taunus,* s-l, c, Germany	1 0 0	
43174	United Mexican,*†‡ s, Mexico	29 7 9	1½ 2
100000	Victorine (Nevada, U.S.) Deb. Bds.	1 0 0	
50000	Virneberg, c, Rheinbreitb., Ger.*	2 0 0	
120000	Wentworth,* g, Wynaad	1 0 0	
100000	West Frntno & Boliv.,* g, Colombia	1 0 0	
100000	Wynaad District,* g, India	1 0 0	
80000	Wynaad Perseverance,*† g	1 0 0	¾ 1
75000	Yorke Peninsula, c, So. Australia†	1 0 0	3/16 5/16
54800	Yorke Pen., c, South Aust. Pref.†	1 0 0	⅝ ⅞
140000	Yuba River,* g, hyd, California	1 0 0	1 1⅛

INSURANCE COMPANIES.

Issue.	Shares.		Pd.	Clos. pr.
50000	100	Alliance British and Foreign	11	36 38
10000	100	Ditto, Marine	20	28 30
50000	20	British and Foreign Marine [L].	4	22 23
550000	50	Commercial Union	5	24½ 25½
50000	50	Eagle	5	6½ 7
5000	20	Globe Marine [L]	11	
27500	100	Imperial Life	10	23 25
13453	100	Indemnity Marine	50	113 116
100000	10	Lion Fire [L]	2	1¾ 2¼
49626	20	L'pool & Lond. Globe (£1 annty)	2	22 24
35862	25	London	12½	65 67
40000	25	London and Lancashire Fire	2½	5¼ 5¾
50000	20	London and Provincial Marine	2	4¾ 5¼
10000	100	Marine	18	26 28
50000	10	Merchants' Marine	2	1¼ 1¾
50000	10	Maritime	2	7¾ 8¼
40000	50	North British and Mercantile	8¾	65 67
30000	100	Northern	5	46½ 47½p
40000	25	Ocean Marine	5	8¾ 9¼
	—	Phœnix Fire	—	
200000	10	Queen	1	3¾ 4¼
100000	10	Railway Passengers	29s.	7¼ 7¾
200000	5	Rock Life	½	8¼ 8¾
50000	10	Sea	2	3⅜ 3 7/16 p
135000	20	Lancashire	2	8 8½
4000	20	Standard Marine	4	6¾ 7 p
10000	20	Thames and Mersey Marine [L].	2	13 13½
40640	20	Union Marine, Liverpool [L]	3½	5¾ 6¼
50000	20	Universal Marine [L]	3	8¾ 9¼

MISCELLANEOUS

Shares.	Company.	Paid.	Price.
25	Australian Agricultural	21 10	68 72
10	Brighton Aquarium [L]	10 0	3½ 4
25	City of London Real Property	12 0	15¾ 16¼
16	Fore Street Warehouse [L]	14 0	19½ 20½
15	Foster, Porter, and Co. [L]	10 10	15½ 16½
7½	Imperial Credit [L]	7 10	—
10	Milner's Safe [L]	10 0	9¾ 10¼
25	National Discount [L]	5 0	10¾ 11¼
10	Pawson and Co. [L]	6 0	5½ 6
50	Peninsular and Oriental Steam	50 0	62 64
Stk.	Scottish Australian Invt. Co.	100 0	210 215
Stk.	Ditto New Ordinary	50 0	105 110
Stk.	Ditto 6 per c. guar. pref.	100 0	130 135
Stk.	Ditto 5 per c. guar. pref.	100 0	112 117
12	Telegraph Const. & Maint. [L]	12 0	25½ 26½
5	Ditto, 2nd Bonus, 3 p. c. (retd. 2 10 0)		1⅝ 1⅞
1	Zoedone [L]	1 0	⅞ 1⅛

IRON AND COAL COMPANIES

Shares.	Company.	Paid.	Price.	
£100	Abbot, John, and Co [L]	£ 75 0	44 42	dis
5	Alltami Colliery Co. [L]	5 0	1 1½	
20	Ashbury Co. [L] (new)	6 10	6¾ 6¼	dis
3	Bagnall, John, and Sons [L]	3 0	3/16 5/16	
10	Benhar Coal Co. [L]	10 0	1¼ 1⅜	
10	Bilbao Iron Co. [L]	10 0	5⅜ 5⅝	
20	Bolckow, Vaughan, & Co. [L] A	12 0	4½ 5	pm
50	Brown, Bailey, and Dixon [L]	40 0	22 20	dis
100	Brown, John, and Co. [L]	75 0	6 5	dis
3	Cakemore, Cseway. Grn. ord. sh.	3 0	—	
3	Ditto (7½ per cent. pref.)	3 0	—	
100	Cammell and Co. [L]	80 0	8¼ 8¼	dis xd
20	Cannock & Huntington Coal [L]	10 0	10½ 10	dis
10	Central Swedish Iron & Stl. [L]	10 0	1 1½	
50	Charlton Iron Co. [L]	50 0	3 3½	
50	Chatterley Iron Co. [L]	50 0	8 9	
10	Chillington Iron Co. [L]	10 0	3¼ 3½	
10	Consett Iron Co. [L]	7 10	16 16½	pm
1	Consett Spanish Ore [L]	1 0	⅜ ½	pm
20	Darlington Iron Co. [L]	18 10	1 1½	dis
50	Davy Brothers [L]	22 10	4 4¼	pm
23	Ebbw Vale Co. [L]	20 0	10 10½	
8	Genl. Mining Ass. [L] (ful. pd.)	80 0	4¼ 4¾	
50	Knowles, Andrew, and Co. [L]	22 0	12½ 11½	dis
20	Llynvi and Tondu [L]	20 0	7½ 8½	
10	Lydney & Wigpool Iron Ore [L]	9 5	9 8	dis
10	Marbella Iron Ore Co. [L]	10 0	7 7½	
10	Midland Iron Co. [L]	5 0	1½ 2	pm
10	Monkland Iron & Coal Co. [L]	10 0		
4	Mwyndy Iron Ore [L]	3 15	1 1½	
100	Nant-y-Glo & Blaina (8 p.c. prf.)	100 0	36 38	
3	Nerbudda Coal and Iron [L]	2⅛	⅝ ⅞	
10	Newport Abercarn Coal Co. [L]	10 0	7 7½	
35	Palmer's Shipbldg. & Iron [L]	35 0	27 28	
100	Parkgate Iron Co. [L]	65 0	5¾ 6¼	pm
20	Patent Nut and Bolt [L]	14 0	9¾ 10	pm
20	Pelsall Coal and Iron [L]	20 0	13½ 14½	
50	Rhymney Iron Co. [L]	50 0	25 27	
10	Sandwell Park Colliery Co. [L]	10 0	15½ 16	
100	Shotts Iron Co. [L]	100 0	55 60	
25	Sheepbridge Iron and Coal [L]	20 0	6 5¾	dis
50	Silkstone & Dodw. Cl. & Iron [L]	45 0	—	
50	Somorrostro Iron Co. [L]	50 0	—	
100	Staveley Iron and Coal Co. [L]	60 0	12½ 13½	pm
100	Ditto ditto B	10 0	2 2¼	pm
5	Teesside Iron & Engine Works	5 0	1¾ 2	
50	Tredegar Iron and Coal, A [L]	26 0	5¼ 4¾	dis
25	Ditto ditto B	25 0	21 22	
20	Ulverston Mining Co. [L]	16 0		
10	Vancouver Coal [L]	6 0	3 4	
25	W. Cumberland Iron & Steel [L]	20 0	11 11½	

BANKS.

Issue.	Shares.		Pd.	Clos. pr.
100000	10	Agra [L]	all	10 10½
80000	20	Anglo-Egyptian Banking [L]	all	28 29
30000	40	Bank of Australasia	all	77 79
12500	20	Bank of British Columbia	all	18½ 19½
20600	50	Bank of British North America	all	54 56
10000	25	Bank of Egypt	all	27 29
50000	20	Bank of New South Wales	all	61 63
100000	10	Bank of New Zealand	all	24½ 25½
25000	25	Bank of South Australia	all	39 41
20000	50	Bank of Victoria	25	35 37
40000	20	Chartrd. of Ind., Aust., & China.	all	24 25
30000	25	Ch. Merc. of Ind., Lond., China.	all	21 22
20000	100	Colonial	30	60 62
50000	20	English Bk. of Rio de Janeiro [L]	10	13½ 14
60000	25	London and River Plate [L]	10	14¼ 14¾
50000	10	London and San Francisco [L]	all	6½ 7
50000	20	London Chartered of Australia	all	19½ 20½
100000	11	National Bank of N. Zealand [L]	3½	3½ 3¾
60000	25	Oriental Bank Corporation	all	20½ 21½
12500	10	Queensland National [L]	5	8¾ 9¾
34000	100	Stndrd. of British So. Africa [L].	25	56½ 57½ xd
50000	25	Union of Australia	all	61½ 62½

GAS COMPANIES.

Issue.	Shares.		Pd.	Clos. pr.
5000	20	Bahia [L]	all	17½ 18½
13000	5	Bombay [L]	all	5½ 6
10000	5	Ditto, New [L]	4	4½ 5
29700	Stk	Brentford Consolidated	100	155 160
14000	20	British	all	33 35
550000	Stk	Commercial	100	190 194
20000	20	Continental Union [L]	all	22½ 23½
20000	20	Do. do. New, 1869, 1872	14	15½ 16½
10000	20	Do. do. 7 per ct. Preference	all	24½ 25½
23406	10	European [L]	all	20 21
94850	Stk	Gaslight and Coke, A, Ord.	100	173 177
284200	Stk	Do, 4 per cent. Deb. Stock	100	104 106
5000	10	Hong Kong and China	all	15¼ 16¼
2800000	Stk	Imperial Continental	100	192 196
386500	Stk	London	100	188 193
12000	5	Malta & Mediterranean [L]	all	2 2½
100000		Metrop. of Melbourne 6 p.c. Deb.		
25000	20	Monte Video [L]	all	14½ 15½
10000	5	Ottoman [L]	all	2¼ 2¾
30000	5	Oriental [L]	all	6¾ 7¼
27500	20	Rio de Janeiro [L]	all	25½ 26½
530000	Stk	South Metropolitan, A	100	210 215
50000	Stk	Ditto, ditto. B	100	178 182

TRAMWAYS.

Issue.	Shares.		Pd.	Clos. pr
40000	5	Anglo-Argentine [L]	all	4⅜ 4⅝
10000	10	Barcelona [L]	all	11¼ 12
7140	10	Belfast Street Tramways	all	5¾ 6¼
3050	10	Birkenhead, Ordinary	all	4 5
3000	10	Ditto, 6 per cent. Preference	all	9½ 10½
9290	10	Bristol [L]	10	14 14½
25000	10	Bordeaux Tram & Omnibus [L].	all	9¾ 10¼
3200	10	Chester [L]	all	—
24000	10	Dublin	all	10 10½
14690	10	Edinburgh Street Tramways	all	12¼ 12¾
35000	10	Glasgow Tramway & Omni. [L].	9	14 14½
10000	10	Hughes Loco. and Tram. works.	all	¼ ¾
7500	10	Hull Street Tramways	all	9¼ 9¾
7500	10	Imperial [L]	all	2 3
34000	10	Liverpool Unit. Tram & Om. [L]	all	10¾ 11¼
25000	10	London [L]	all	13¼ 13¾
15000	10	London Street Tramways	all	10¾ 11¼
60000	10	North Metropolitan	all	14¾ 15¼
8000	10	Nottingham and District [L]	all	8½ 9½
15947	10	Provincial [L]	all	10½ 11
6000	10	Sheffield	all	5½ 6½
5000	10	Southampton	all	5½ 6½
6000	10	Sunderland [L]	all	4 5
10000	10	Swansea [L]	all	—
12000	10	Tramways of France [L]	all	5¾ 6¼
16500	10	Tramways of Germany [L]	all	10½ 11
20000	5	Tramways and Gen. Works [L].	all	6¼ 6¾
40000	5	Tramways Union [L]	all	6½ 6¾
25000	10	Vale of Clyde	6	4½ 4¾
7200	10	Wolverhampton [L]	all	6½ 7½

TELEGRAPH COMPANIES

Shares.		Pd.	Clos. pr.
Stk.	Anglo-American	100 0	51¾ 52¼
10	Brazilian Submarine	10 0	11⅛ 11⅜
10	Cuba	10 0	9½ 10
10	Direct Spanish	9 0	5 5½
20	Direct United States Cable	20 0	10⅜ 10⅝
10	Eastern	10 0	10⅛ 10⅜
10	East. Exten. Austr. and China	10 0	11 11½
10	German Union	10 0	10 10½
10	Great Northern	10 0	12¼ 12¾
25	Indo-European	25 0	28 29
10	London Platino Brazilian	10 0	5½ 6

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